State of Idaho Epidemiological Profile Of Substance Abuse 2010

State Epidemiological Outcomes Workgroup Report

Prepared by:
Idaho Department of Health and Welfare
Division of Behavioral Health
Substance Abuse Program

Table of Contents

This profile is an attempt to gain better understanding of substance use and abuse patterns within a specific geographic area. The profile relies mainly on four potential sources of data for information on substance users; surveys containing self-reported data on substance abuse, treatment admissions data, drug-related arrest data, and mortality data. While all of these information sources are good, they do have limitations. As such, this profile should be combined with other data sources (e.g., local experts, other archival data) to provide a more thorough basis for understanding substance use practices within the specific areas of the state.

Idaho has a relatively small population compared to its western neighbors. Only Wyoming and Montana have smaller state populations. Both alcohol induced deaths and drug induced deaths are higher in the west than the rest of the nation. Compared to other states in the west, substance abuse indicators are generally moderately low in Idaho.

Survey data indicates that within the state, Regions 3, 1, and 2 have the highest percentages of past month alcohol use and binge drinking. DUI arrest rates support this evidence. The survey data also indicates that the percent of illicit drug use is highest in Region 2, but rates of drug related arrests are the lowest in this region. Marijuana arrest rates are highest in Region 1, methamphetamine arrest rates are highest in Regions 5 & 4, and cocaine arrest rates are highest in Region 2. This information hints that each region might have its own different "preferred substance."

In 2006, 35% of treatment admissions in Idaho were for amphetamine treatment, 23% of admissions were for marijuana, 23% of admissions were for alcohol as a primary drug. Adult treatment admissions for alcohol, marijuana, and methamphetamine have increased between 52% -73% since 2005. Youth treatment admissions have dropped for meth, increased 15% for alcohol, and jumped 36% for marijuana since 2005.

Adult smoking is at a ten year low, however, after a steady decrease in youth smoking for the last ten years, smoking among 10th and 12th graders increased slightly from 2004 to 2006.

This profile exposes several limitations. Idaho struggles to collect indicators that directly describe and measure substance use rather than aspects related to usage. Collecting data by region has also been problematic. While it is certainly easier to discuss seven regions than it is to discuss 44 counties, a great deal of detail is lost in the conversion to regions. Since few our counties are demographically similar to those counties that adjoin them, mean regional scores can mischaracterize trends occurring in rural and frontier counties.

The West has its own regional differences as compared to the rest of the nation. This profile examines various characteristics related to substance abuse in Idaho and throughout the West. By comparing substance abuse in Idaho with neighboring western states, the profile develops a clearer understanding of the prevalence of drug use in Idaho and across its environment.

Consequences of Substance Abuse

Table 1

Leading Causes of Death and their Rates Per 100,000 Persons, 2005

	US	Idaho	Montana	Nevada	Oregon	Utah	Washington	Wyoming
All Causes	825.9	738.6	911.4	788.0	853.9	543.9	734.8	804.8
Diseases of heart (I00-I09, I11, I13, I20-I51)	220.0	171.4	198.3	210.9	186.5	116.3	174.7	186.9
Malignant neoplasms (C00-C97)	188.7	165.7	209.0	175.5	201.2	102.0	175.7	174.0
Cerebrovascular diseases (I60-I69)	48.4	50.2	55.8	39.1	62.9	32.2	46.0	43.4
Chronic lower respiratory diseases (J40-J47)	44.2	50.2	62.0	50.8	50.5	24.0	42.9	57.1
Chronic liver disease and cirrhosis (K70, K73-K74)	9.3	8.8	12.8	11.4	10.8	5.1	8.9	11.8
Accidents (unintentional injuries) (V01-X59, Y85-Y86)	39.7	42.4	56.0	45.7	40.3	30.1	40.4	59.3
Intentional self-harm (suicide) (U03, X60-X84, Y87.0)	11.0	16.0	22.0	19.9	15.4	14.1	13.1	17.7
* Homicide	6.1	3.1	3.5	7.9	2.8	2.5	3.7	3.1
* Alcohol induced deaths	7.3	9.4	13.4	9.3	14.6	5.3	9.8	12.6
* Drug induced deaths	11.3	8.3	12.7	19.2	14.1	19.3	14.8	8.8

Homicide ICD-10 Codes: U01-U02, X85-Y09, Y87.1

CDC/NCHS, National vital statistics reports; vol 56 no 10, 2008.

*Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2005. CDC WONDER On-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at http://wonder.cdc.gov/cmf-icd10.html on Apr 14, 2009 3:07:58 PM.

Table 2

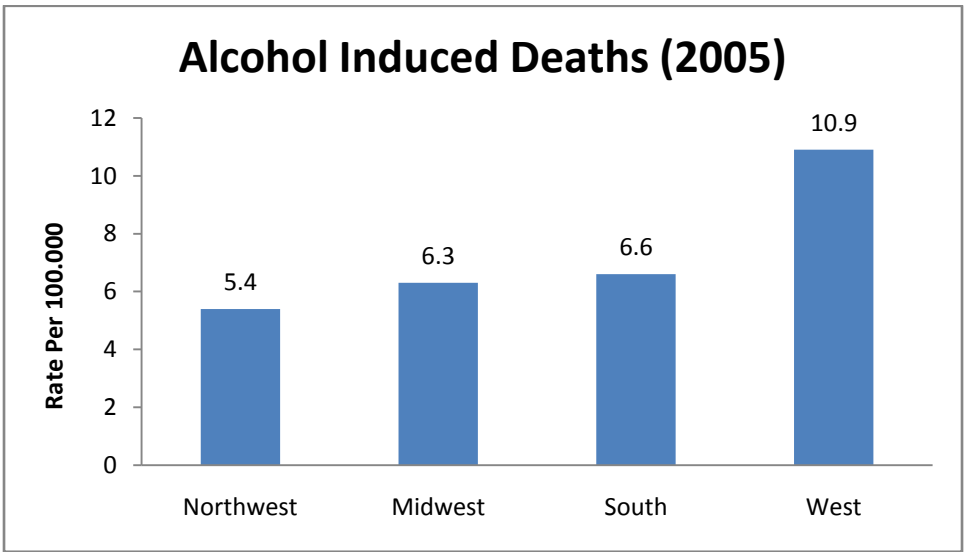
2003 Fatal Crash Rates Per 100,000 Persons	US Rate	Idaho Rate	Oregon Rate	Montana Rate	Utah Rate	Wyoming Rate	Nevada Rate	Washington Rate
MV fatal Traffic Crashes	14.8	21.4	14.4	28.6	13.1	32.9	16.4	9.8
Persons Killed MV Crashes BAC = 0.00	8.9	13.7	8.6	14.7	11.1	20.3	8.4	5.5
Persons Killed MV Crashes BAC > 0	5.9	7.8	5.8	13.8	2.0	12.6	8.0	4.3

National Highway Traffic Safety Administration database.
http://www-nrd.nhtsa.dot.gov/departments/nrd-30/ncsa/STSI/USA%20WEB%20REPORT.HTM

Alcohol Use

Alcohol induced deaths represent a disproportionate burden on the west when compared with the rest of the US.

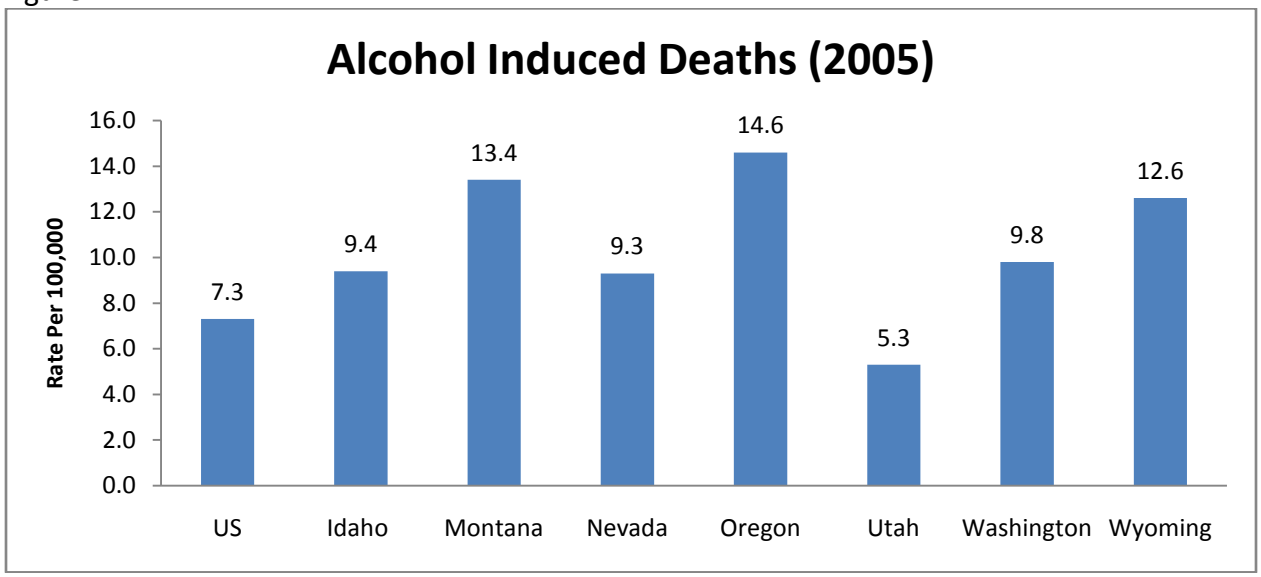
Figure 1



Source: Centers for Disease Control and Prevention, National Center for Health Sciences, Compressed Mortality File 1999-2005. CDC WONDER on-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at http://wonder.cdc.gov/cmf-icd10.html on Apr, 2009.

Although the rate of alcohol induced deaths is lower in Idaho as compared to the west, the rate of alcohol induced deaths in Idaho is 20% greater than the national average. The rate of alcohol induced deaths is lower in Idaho than in most of the surrounding states.

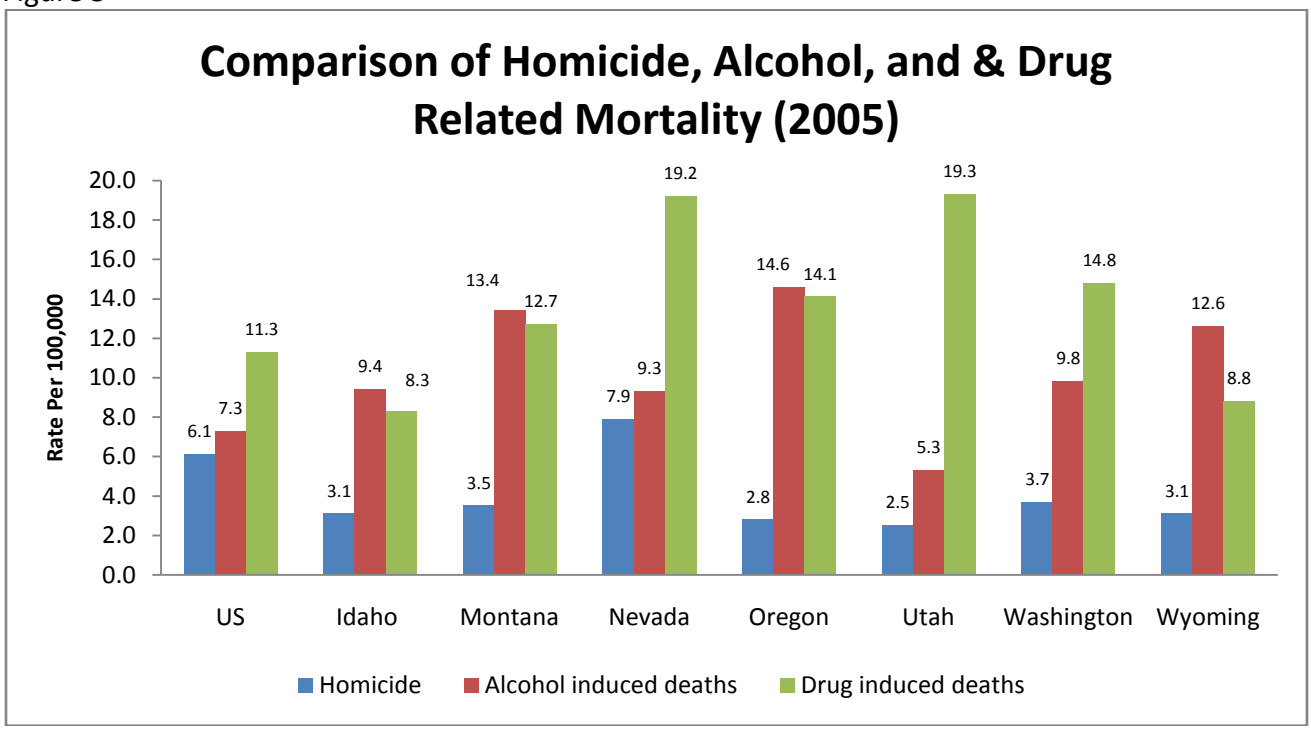
Figure 2



Source: Centers for Disease Control and Prevention, National Center for Health Sciences, Compressed Mortality File 1999-2005. CDC WONDER on-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at http://wonder.cdc.gov/cmf-icd10.html on Apr, 2009.

Alcohol-induced causes include not only deaths from dependent and nondependent use of alcohol, but also accidental poisoning by alcohol. Alcohol-induced causes exclude accidents, unintentional injuries, homicides, and other causes indirectly related to alcohol use. This category also excludes newborn deaths associated with maternal alcohol use.
Although homicides receive a great deal of recognition, alcohol and drug induced deaths actually outstrip homicides. While the homicide rate is fairly similar to drug and alcohol related death rates in the US, westerners (except for Nevada) experience much lower homicide rates compared to US rates.

Figure 3



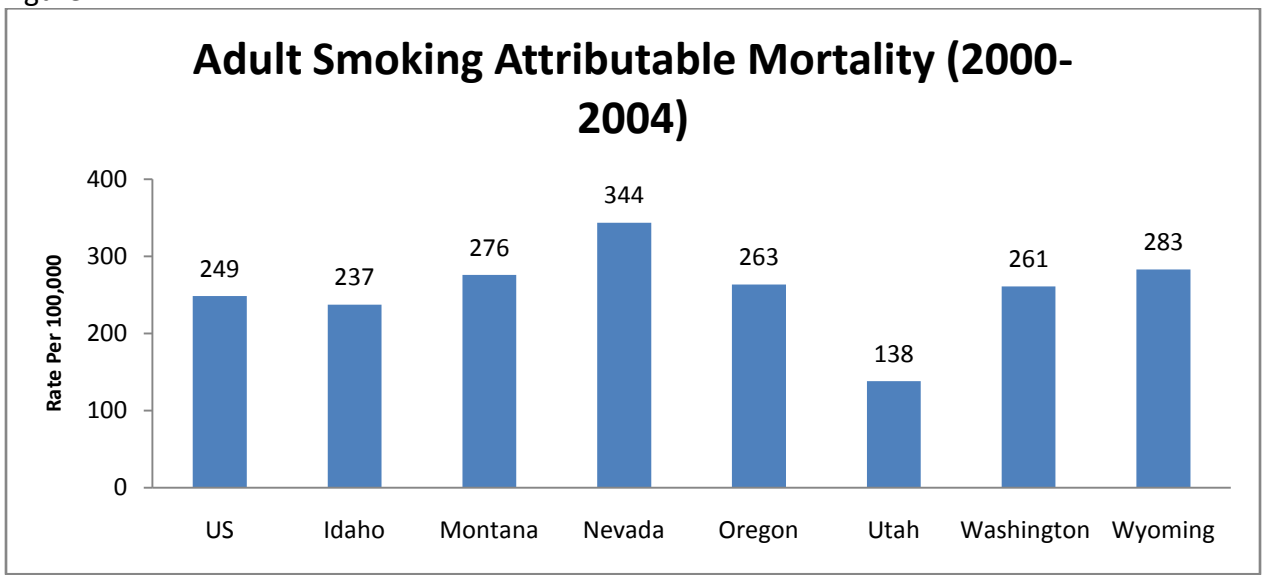
Source: Centers for Disease Control and Prevention, National Center for Health Sciences, Compressed Mortality File 1999-2005. CDC WONDER on-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at http://wonder.cdc.gov/cmf-icd10.html on Apr, 2009.

Smoking

The Purpose of Smoking Attributable Mortality (SAM) is calculation developed by the CDC for the purpose of better describing the overall impact of smoking on an area's mortality. SAM is calculated by multiplying the number of deaths due to smoking related diseases by a Smoking Attributable Fraction (SAF).

Adult Smoking Attributable Mortality (SAM) in the west is lowest in Utah (138 per 100,000) followed by Idaho (237 per 100,000). Idaho's SAM rate per 100,000 is 5% lower than the national rate.

Figure 4



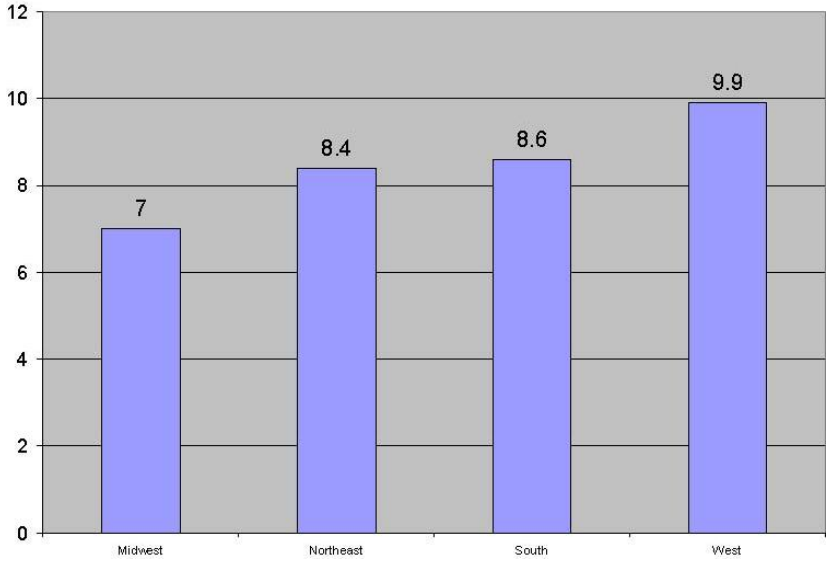
Source: http://apps.nccd.cdc.gov/sammec/

Drug Use

The West experiences the highest rate of drug induced deaths than any other region in the US. Drug-induced causes of death include not only deaths from dependent and non dependent use of drugs (legal and illegal use), but also poisoning from medically prescribed and other drugs. It excludes unintentional injuries, homicides, and other causes indirectly related to drug use such as motor vehicle crashes. Also excluded are newborn deaths due to mother's drug use.

Figure 5

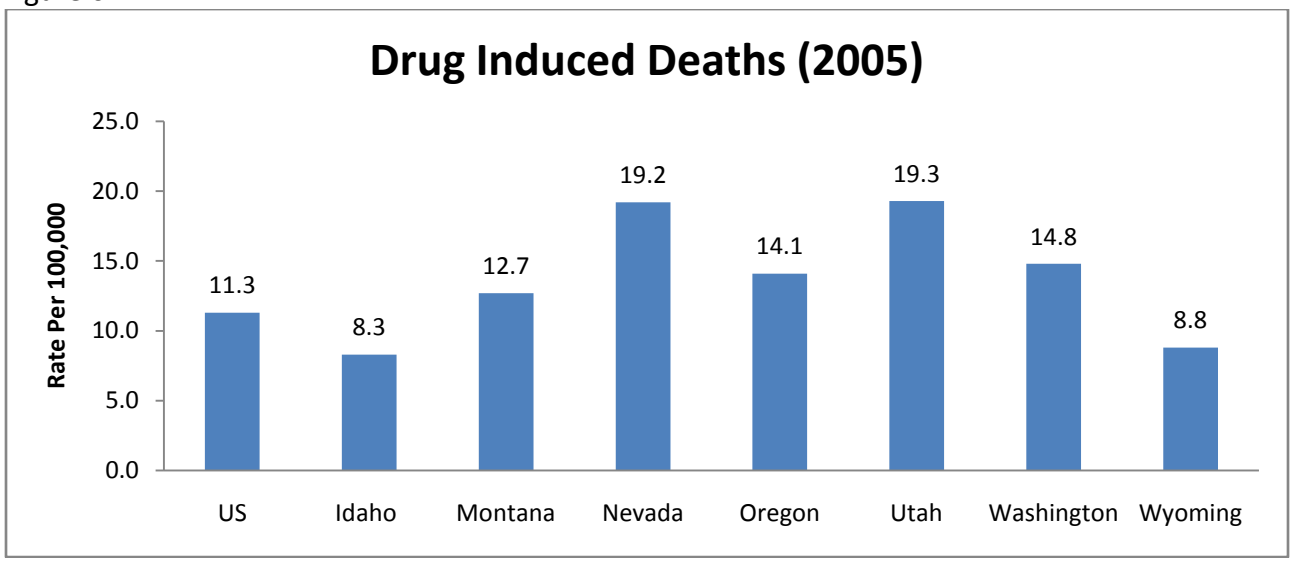
National Drug Induced Deaths (1999 – 2004)
Rate per 100,000 Population



Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2004, CDC WONDER on-line Database, Compiled from Compressed Mortality File 1999-2004 Series 20 No. 2J, 2007[2].

The west experiences a higher rate of drug induced caused deaths (9.9 per 100,000) than any other region in the US. However, the rate of drug induced caused deaths in Idaho (8.3) is 36% less than the national average. In our region, only Wyoming has a lower rate of drug induced deaths.

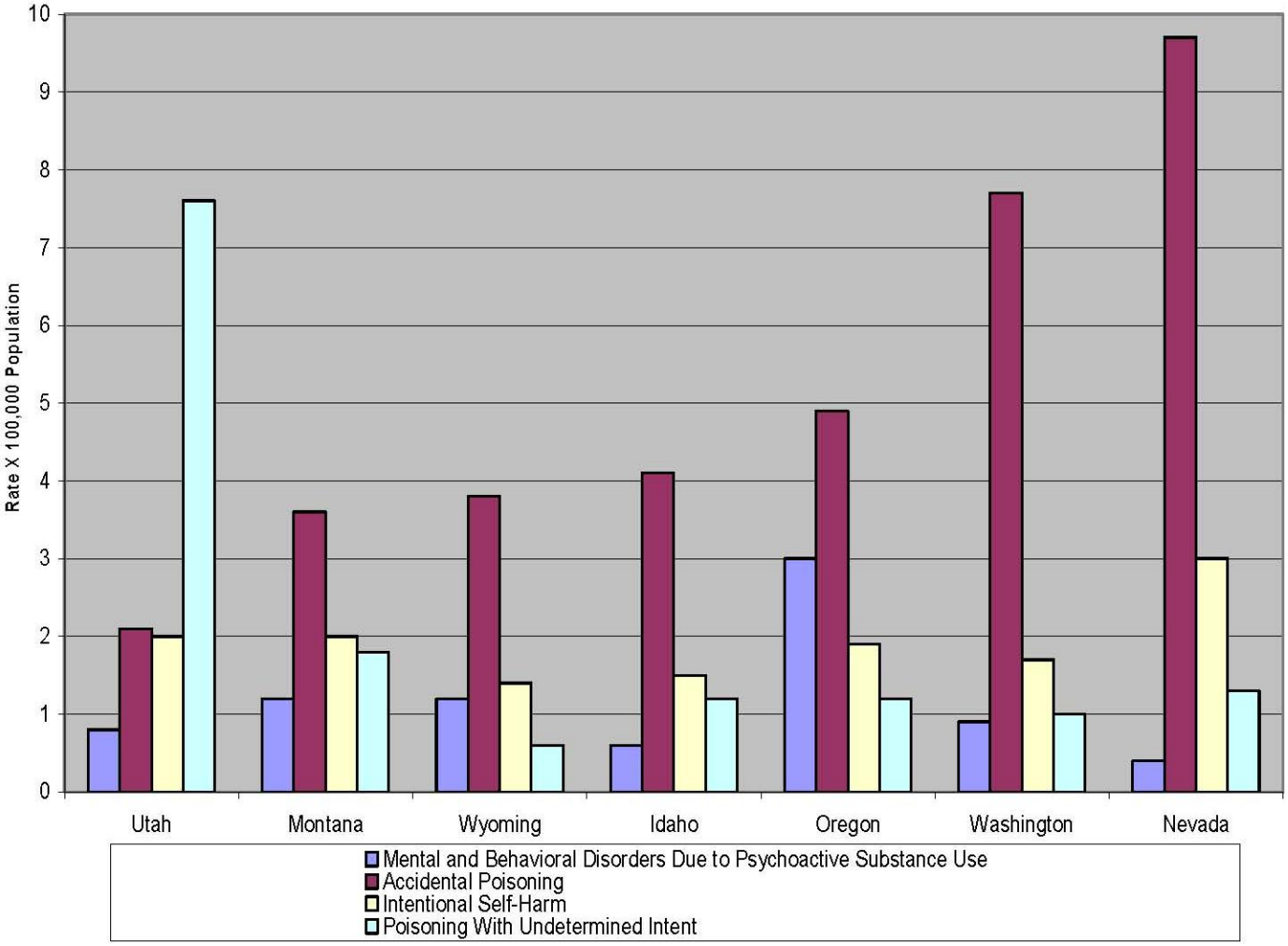
Figure 6



Source: Centers for Disease Control and Prevention, National Center for Health Sciences, Compressed Mortality File 1999-2005. CDC WONDER on-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at http://wonder.cdc.gov/cmf-icd10.html on Apr, 2009.

The major causes of these drug-induced deaths are depicted in the graph below. When broken down by its 4 major causes, drug induced deaths are most often attributed to either accidental poisoning or to suicide. The intent of a drug induced poisoning can be difficult to determine. As seen in the Utah data, the difficulty in determining the intent of drug induced deaths confounds analysis. Mental and Behavioral Disorders Due to Psychoactive Substance Use can be assigned to deaths that are associated with the use of opioids, cannabinoids, sedatives or hypnotics, cocaine, stimulants, hallucinogens, tobacco, volatile solvents, or multiple drug use. Complications might include "bad trips," trauma, inhalation of vomit, and coma[6].

Figure 7: Major Causes of Drug Induced Deaths (1999-2004)



Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2004, CDC WONDER on-line Database, Compiled from Compressed Mortality File 1999-2004 Series 20 No. 2J, 2007[5].

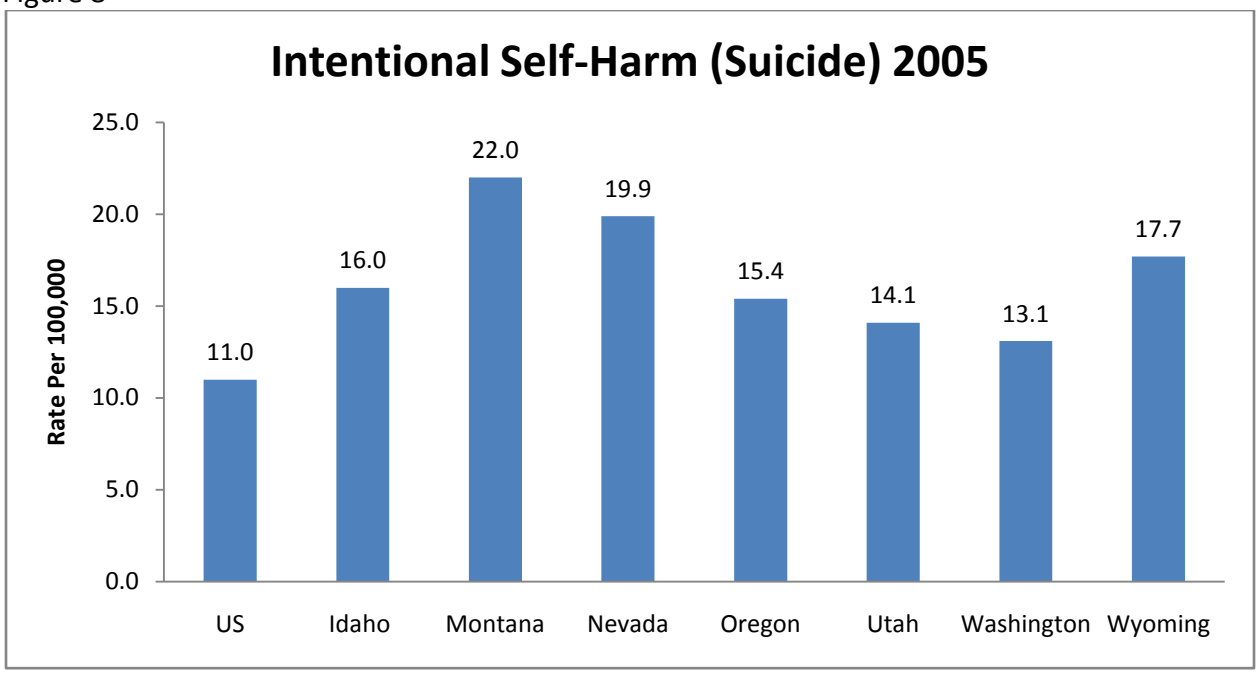
Suicide

There is a strong association between suicide, mental illness, and substance abuse. For the period of 2004 and 2005, those adults who experienced a major depressive episode in the past year and reported suicide attempts were 4.6% more likely to have also reported binge drinking in the past month than non-binge drinkers. During the same period, those adults who experienced a major depressive episode in the past year and reported suicide attempts were 10.1% more likely to have also reported illicit drug use in the past month than those who had not used illicit drugs in the past month.
SAMHSA, The OAS Report, Issue 34, 2006 http://www.oas.samhsa.gov/2k6/suicide/suicide.htm

Nationally, in 2005, suicide was the 11th leading cause of death. By comparison, in Idaho,

suicide was the 9th leading cause of death, 8th leading cause of death in Utah, and the 6th leading cause of death in Nevada. Among the remaining neighboring states, suicide was the 9th leading cause of death. Idaho's suicide rate (2005) was 45% greater than the national rate.

Figure 8



Source: CDC/NCHS, National vital statistics reports; vol 56 no 10, 2008

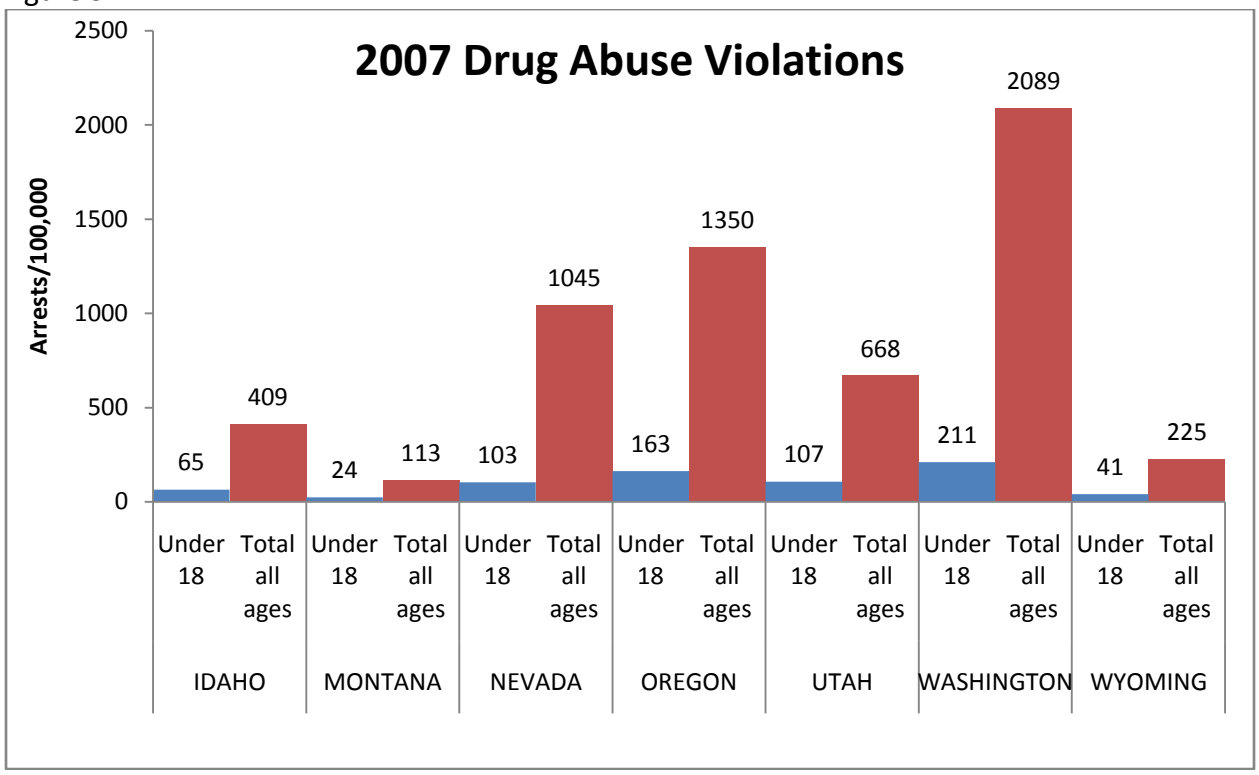
ICD-10 Codes: U03, X60-X84, Y87.0

Arrests

Drug arrests data has several limitations when used to determine drug prevalence. This data looks at only those who are arrested for drug arrests and completely overlooks those who use drugs and are arrested on on-drug related charges, and those who use drugs but are not arrested. Substance use related crimes are dependent on both the magnitude of crime and on concentration of law enforcement on drug arrests.

In 2007, the national arrest rate (all ages) for drug abuse arrests was 615 per 100,000 inhabitants. The FBI's 2007 Uniform Crime Report found that the drug abuse arrest rate in Idaho for the all ages group was 66% of the national rate.

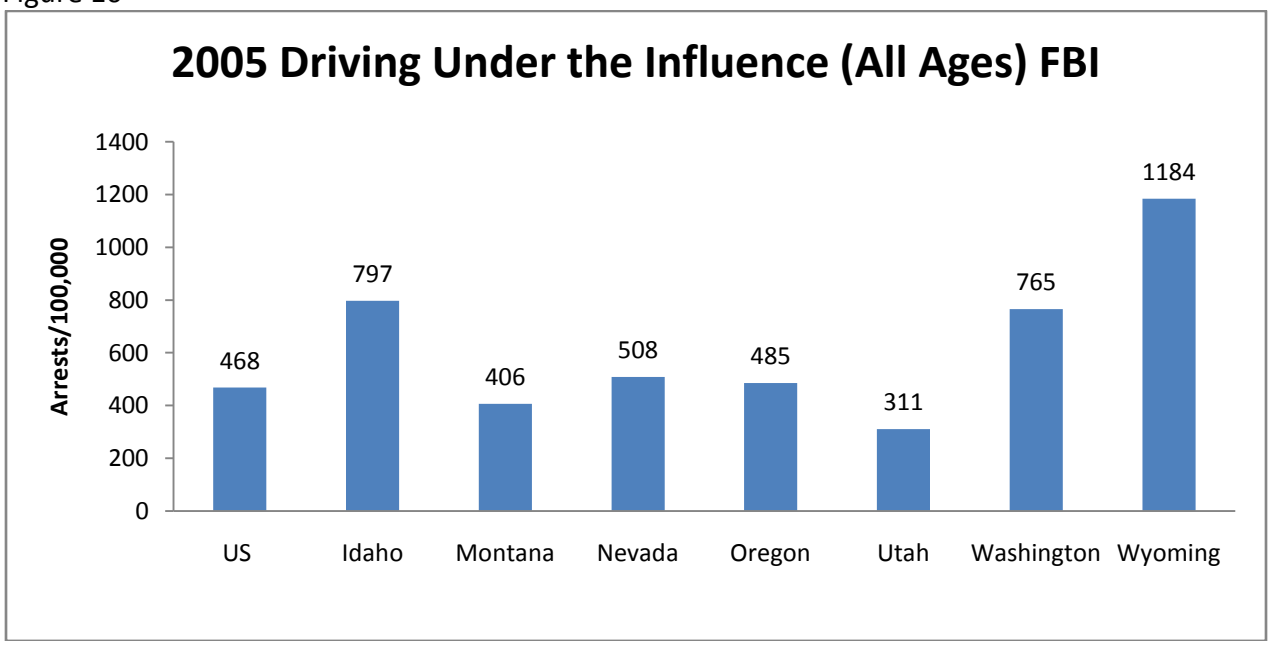
Figure 9



Source: http://www.fbi.gov/ucr/cius2007/data/table_69.html

Arrest rates for driving under the influence are very high across the west. The FBI reports that in Idaho, the rate of arrest for driving under the influence is 30% greater than the national rate (468 per 100,000).

Figure 10

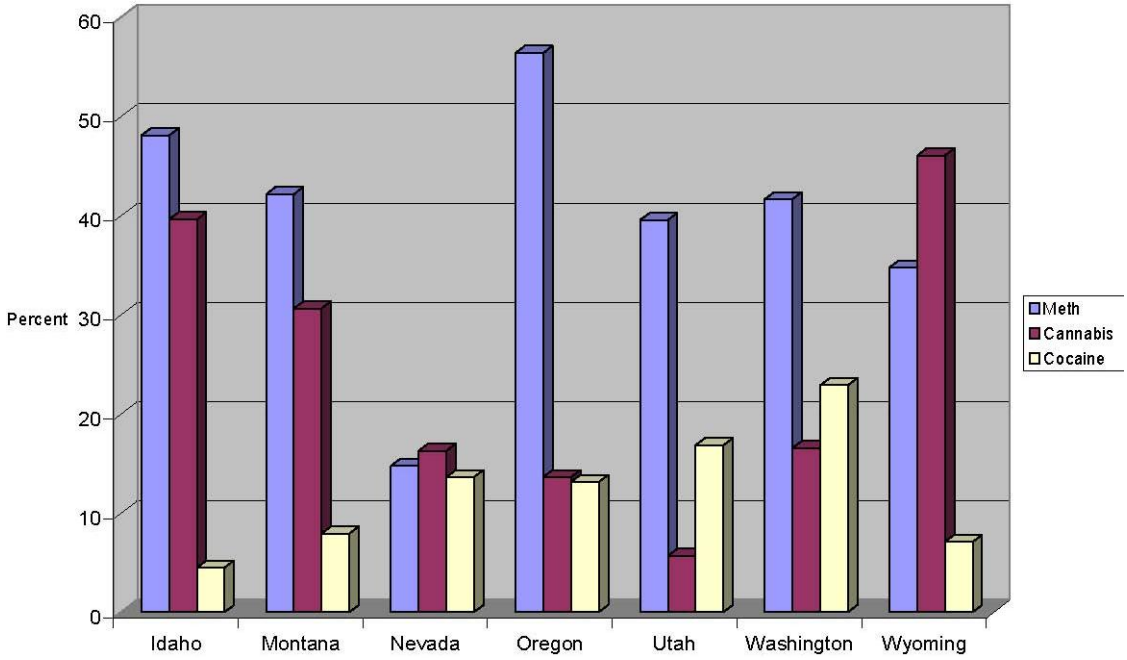


Source: http://www.fbi.gov/ucr/cius2007/data/table_69.html

Drug Analysis

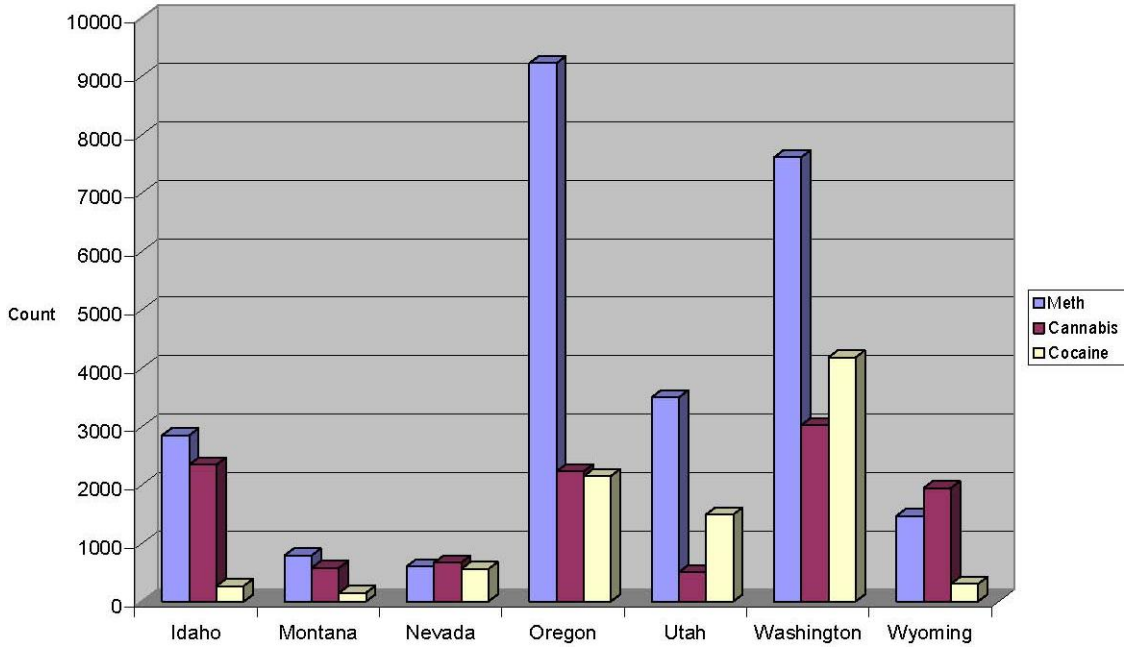
National Forensic Laboratory Information System (NFLIS) analyzes the chemical make-up of questionable drugs found during drug seizures. NFLIS data is tracked to identify existing and emerging drug patterns at the national, regional, and local level. NFLIS reports only those drugs it receives for analysis. It is difficult to make complete comparisons using only NFLIS data because law enforcement departments have varying policies regarding which seizures should be sent for analysis.

Figure 11: Percentage of Drugs Analyzed at NFLIS Lbs (NFLIS, 2006)



Idaho uses the National Forensic Laboratory to analyze drugs less often than Oregon and Washington. Of those drugs analyzed at the NFLS for Idaho, most substances are methamphetamine or marijuana.

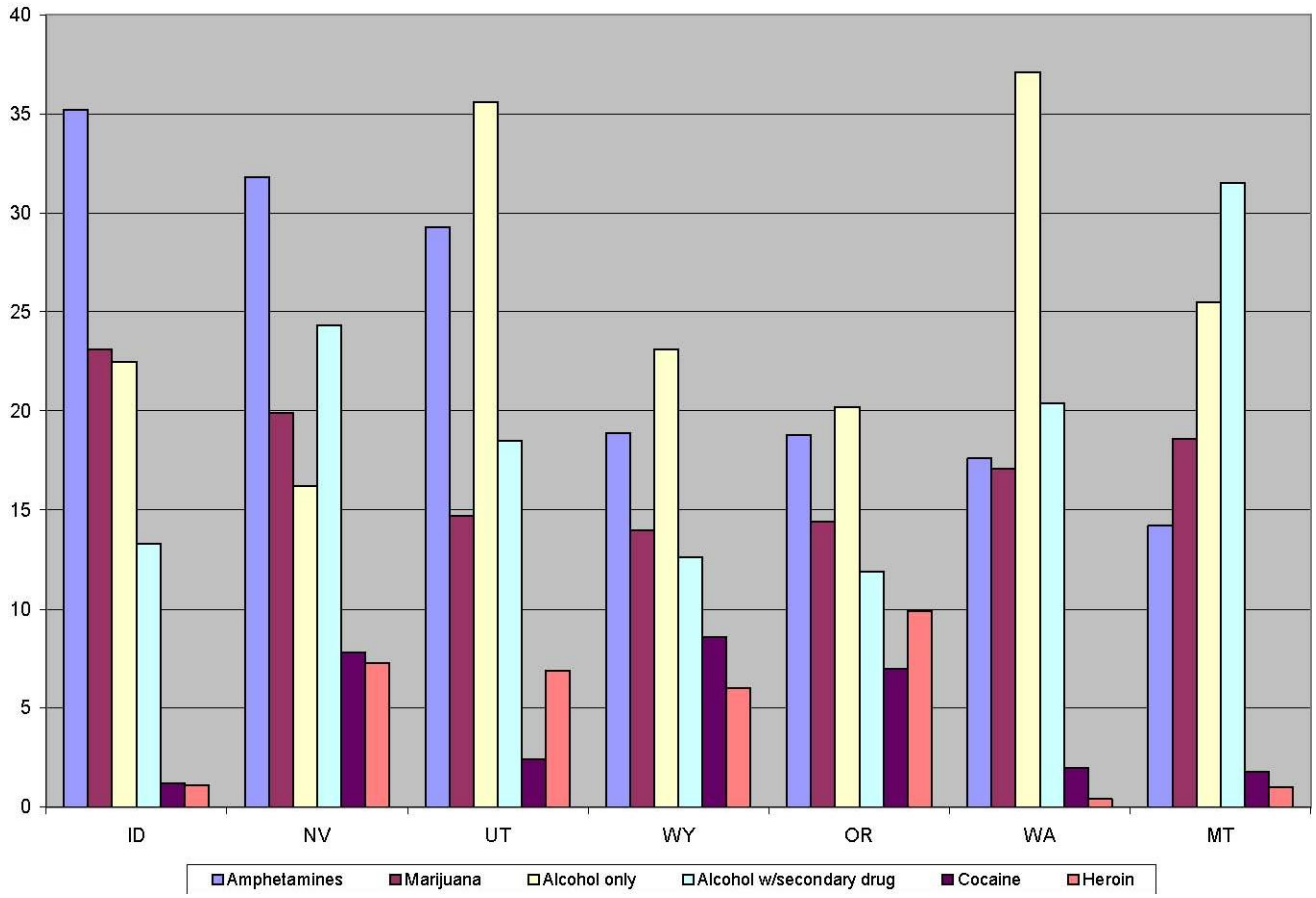
Figure 12: Number of Drugs Analyzed at NFLIS Labs (NFLIS, 2006)



Treatment Data

TEDS data reveals that as compared to neighboring states, Idaho dedicates a greater percentage of treatment to amphetamine and marijuana use. Generally, most neighboring states put relatively greater emphasis on treatment for alcohol, heroin, and cocaine use than is found in Idaho.

Figure 13: Treatment Admissions 2006 (TEDS) Breakdown by Percentage of Admissions by State

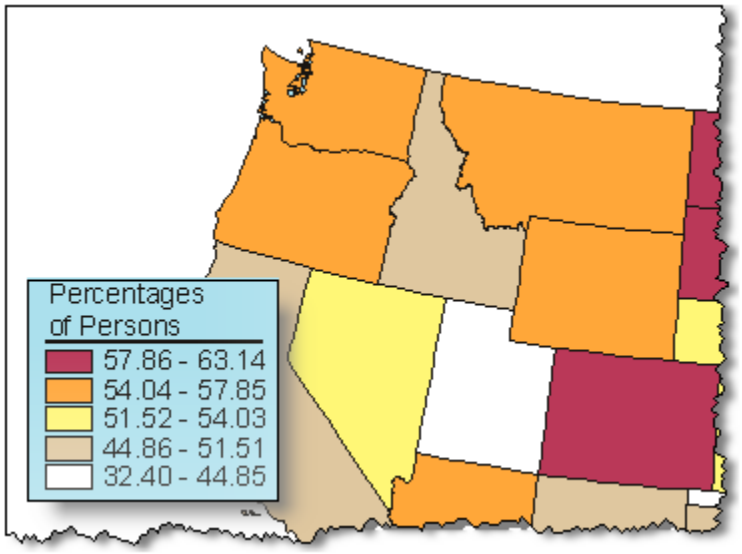


Consumption

The following maps contain results from the National Survey of Drug Use and Health (NSDUH). Each page contains two maps, one depicts use for all persons 12 and older and the second illustrates use among youths (ages 12-17). Data from NSDUH indicates that when measured as a percent per population, drug and alcohol use in Idaho can generally be considered moderate to average when compared with those western states that surround us. However, cocaine use among teens has dropped relative to other nearby states since the last report and is now lower than most adjoining states (See figures 28 and 29).

Figure 14

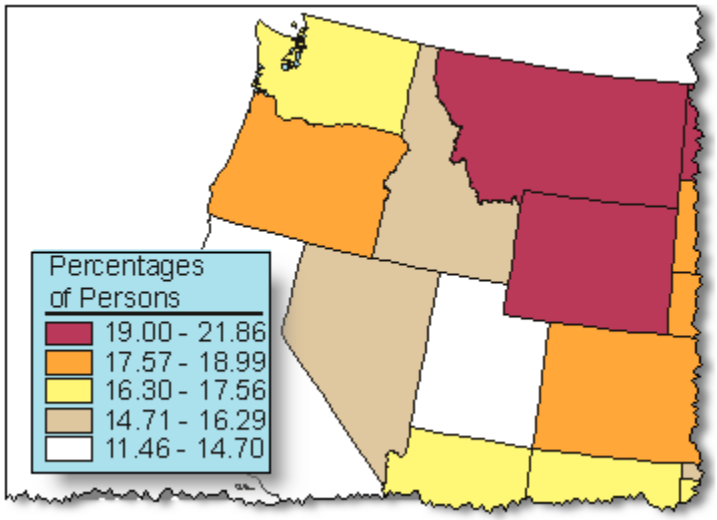
Alcohol Use in Past Month among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch3.htm#Fig3-1

Figure 15

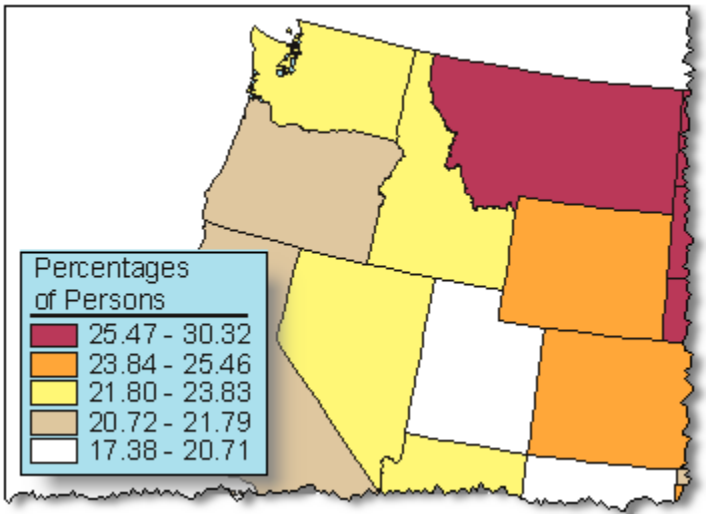
Alcohol Use in Past Month among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch3.htm#Fig3-1

Figure 16

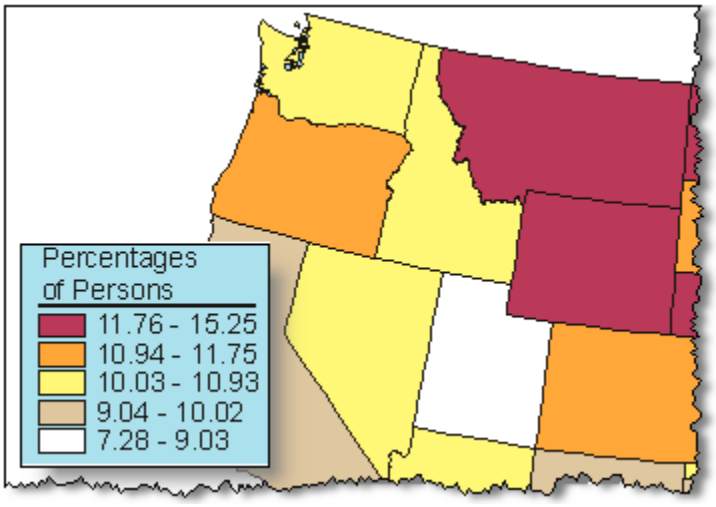
Binge Alcohol Use in Past Month among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch3.htm#Fig3-1

Figure 17

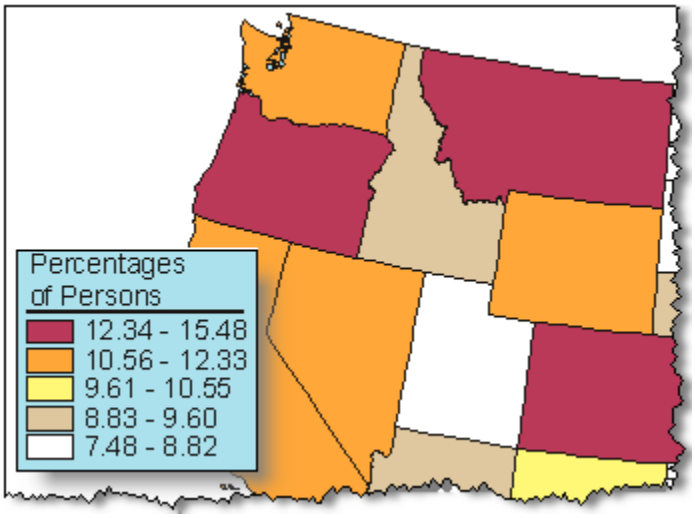
Binge Alcohol Use in Past Month among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch3.htm#Fig3-1

Figure 18

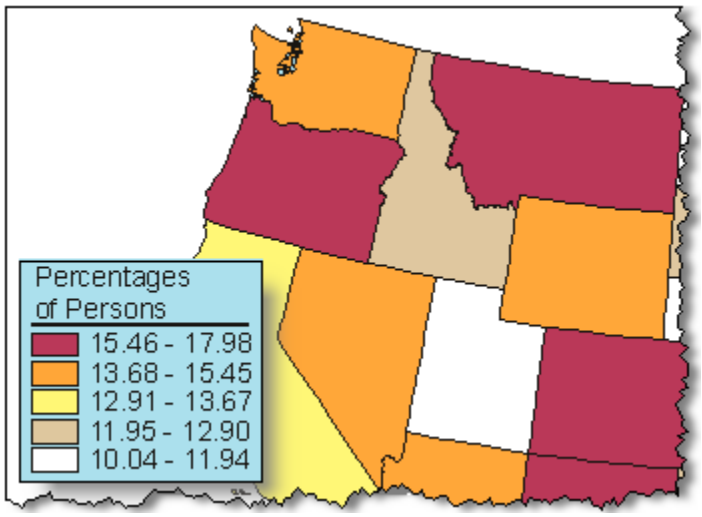
Marijuana Use in Past Year among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 19

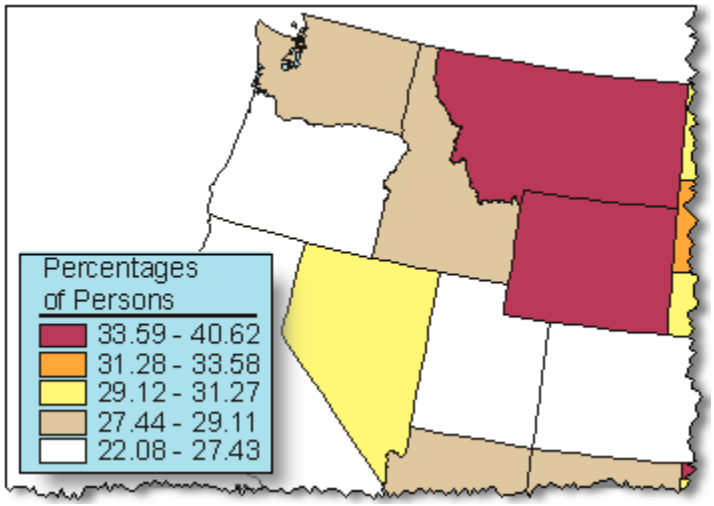
Marijuana Use in Past Year among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 20

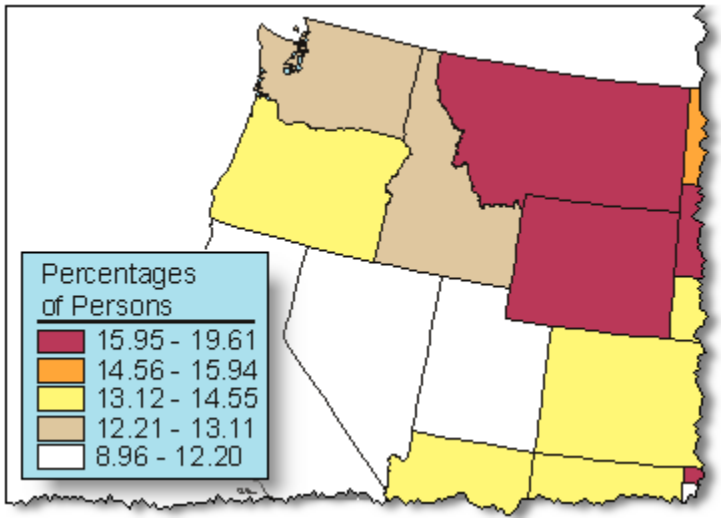
Tobacco Product Use in Past Month among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch4.htm#Fig4-1

Figure 21

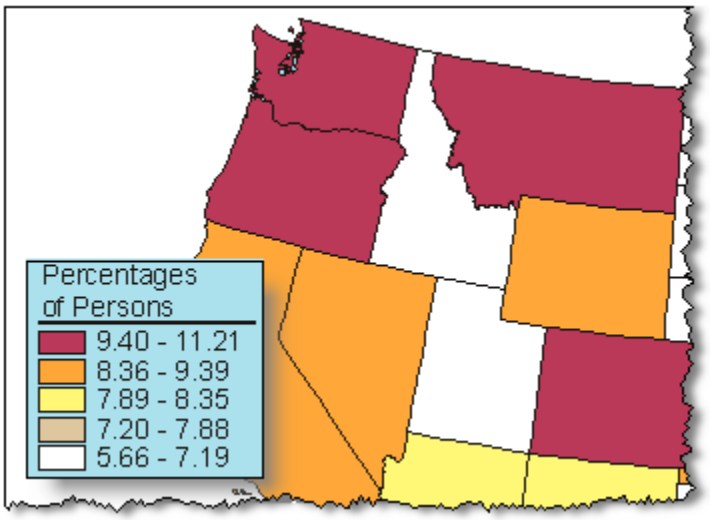
Tobacco Product Use in Past Month among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch4.htm#Fig4-1

Figure 22

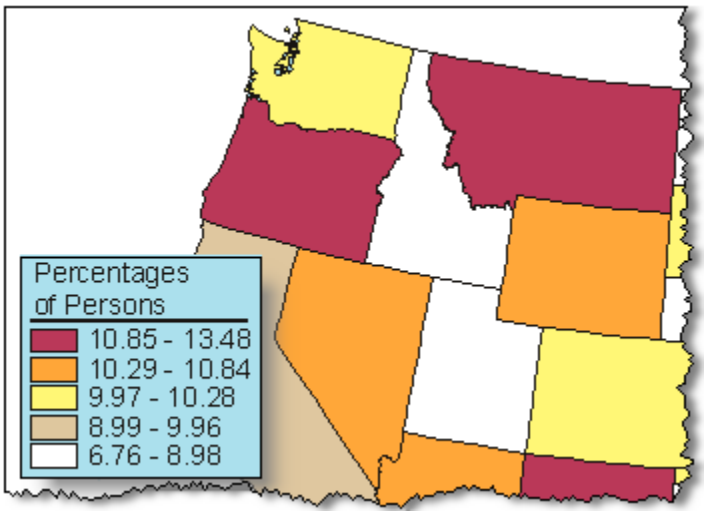
Illicit Drug Use in Past Month among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 23

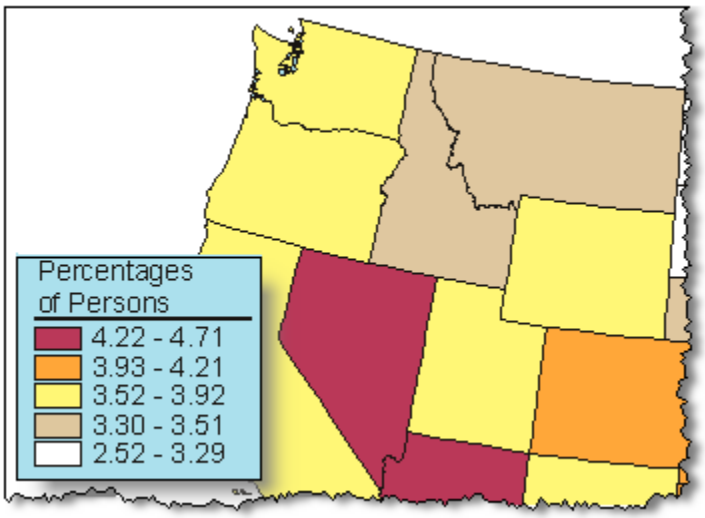
Illicit Drug Use in Past Month among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 24

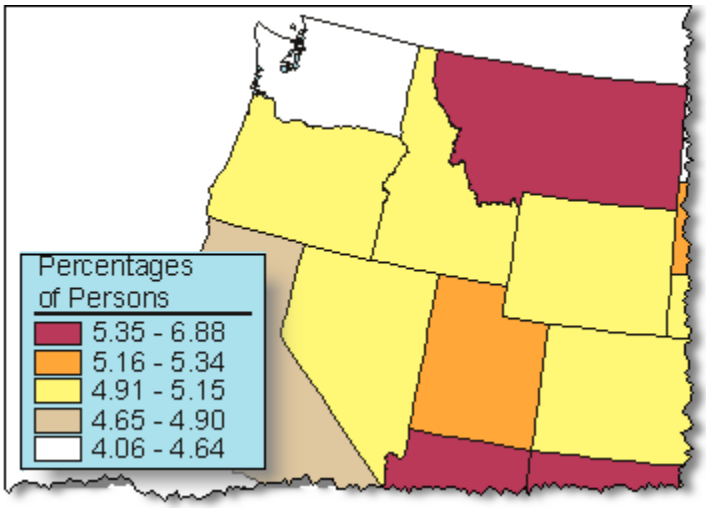
Illicit Drug Use Other Than Marijuana in Past Month among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 25

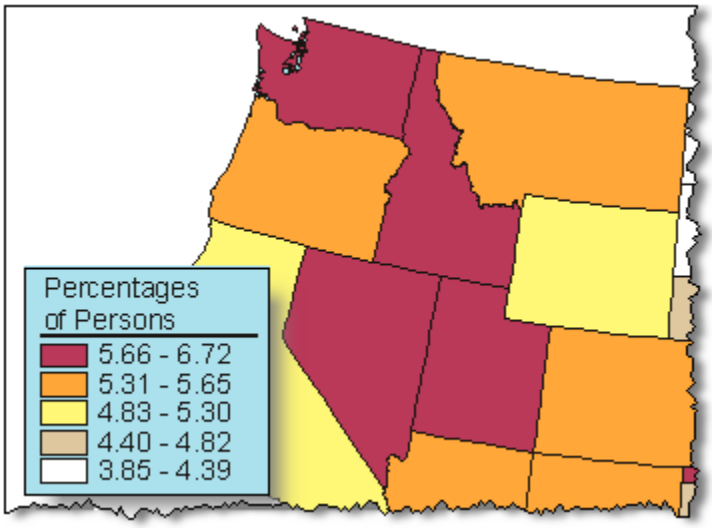
Illicit Drug Use Other Than Marijuana in Past Month among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 26

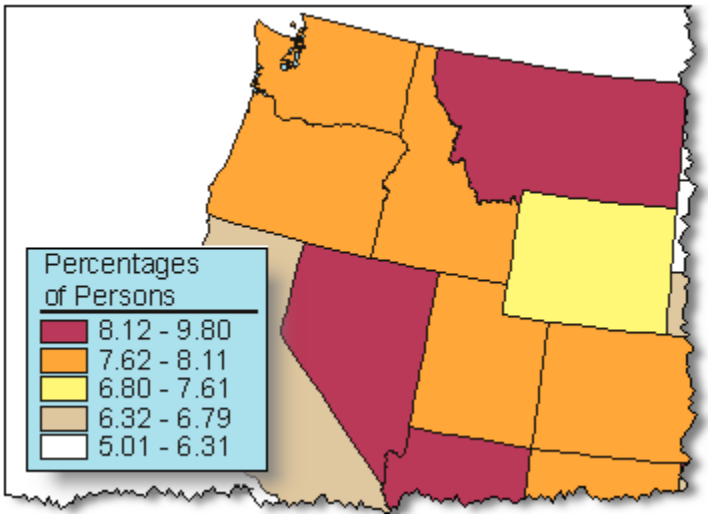
Nonmedical Use of Pain Relievers in Past Year among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 27

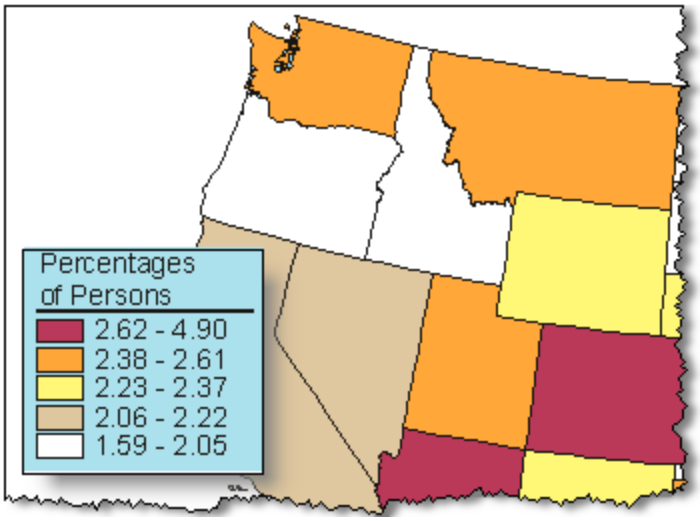
Nonmedical Use of Pain Relievers in Past Year among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 28

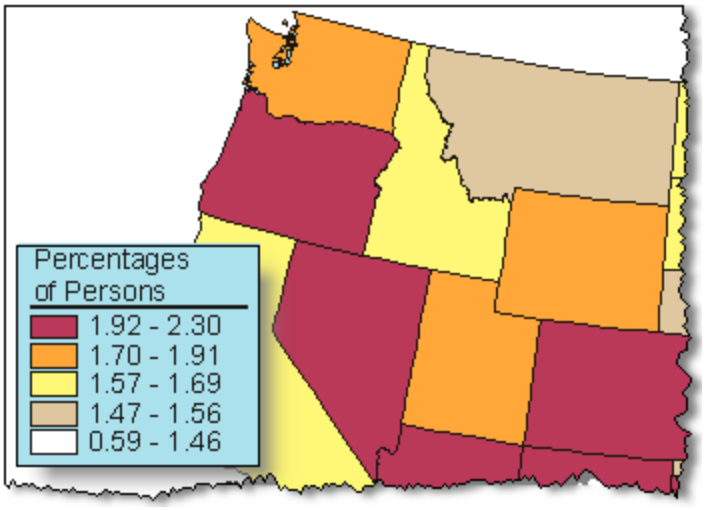
Cocaine Use in Past Year among Persons Aged 12 or Older, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Figure 29

Cocaine Use in Past Year among Youths Aged 12 to 17, by State: Percentages, Annual Averages Based on 2005 and 2006 NSDUHs



Source: SAMHSA Office of Applied Studies http://oas.samhsa.gov/2k6State/Ch2.htm#Fig2-1

Nationally, 0.6 percent of the population used methamphetamine in the past year (2002-2005). Methamphetamine past year use is higher in the west than any other region. In the west, the percentage of people using methamphetamine in the past year is more than double the national percentage.

NSDUH Report; Issue 37, 2006
http://www.oas.samhsa.gov/2k6/stateMeth/stateMeth.htm

Figure 30: US Average Percentage of Persons Aged 12 or Older Reporting Past Year Methamphetamine Use (2002 – 2005)

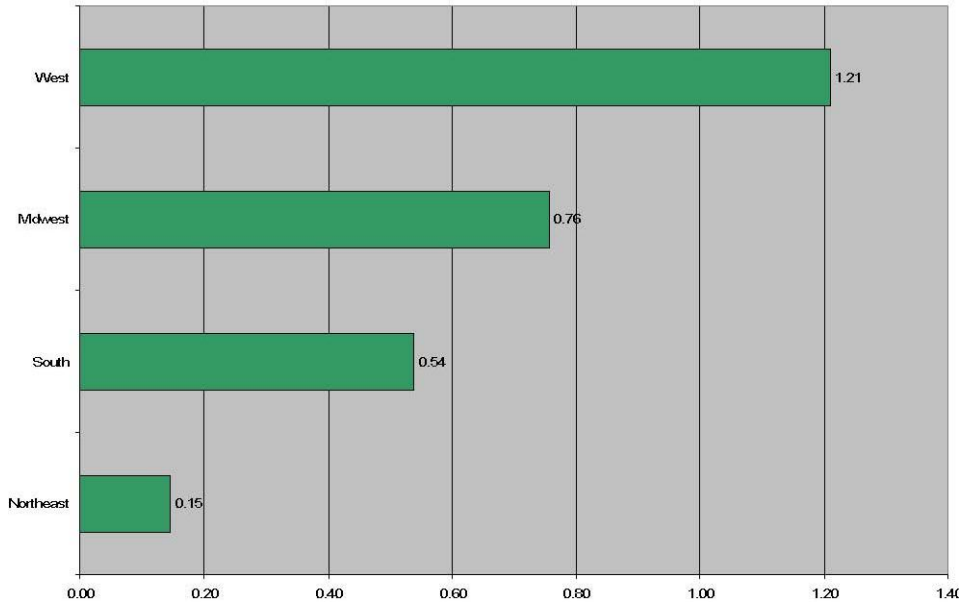
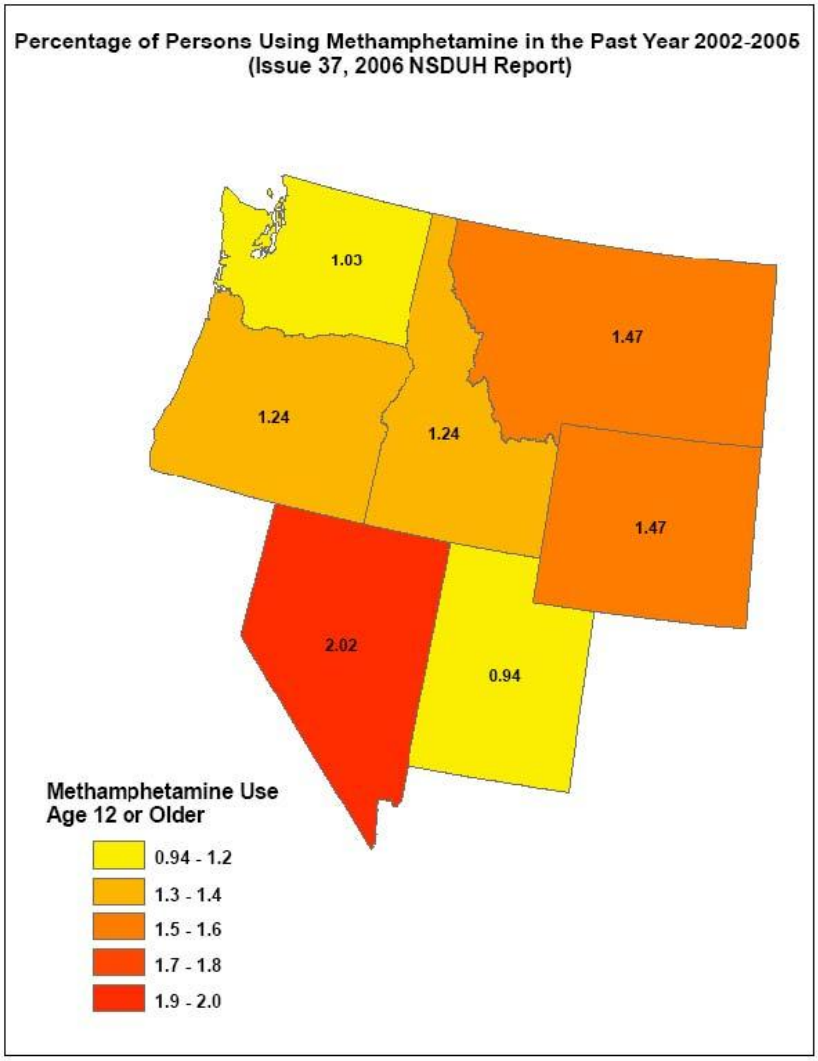


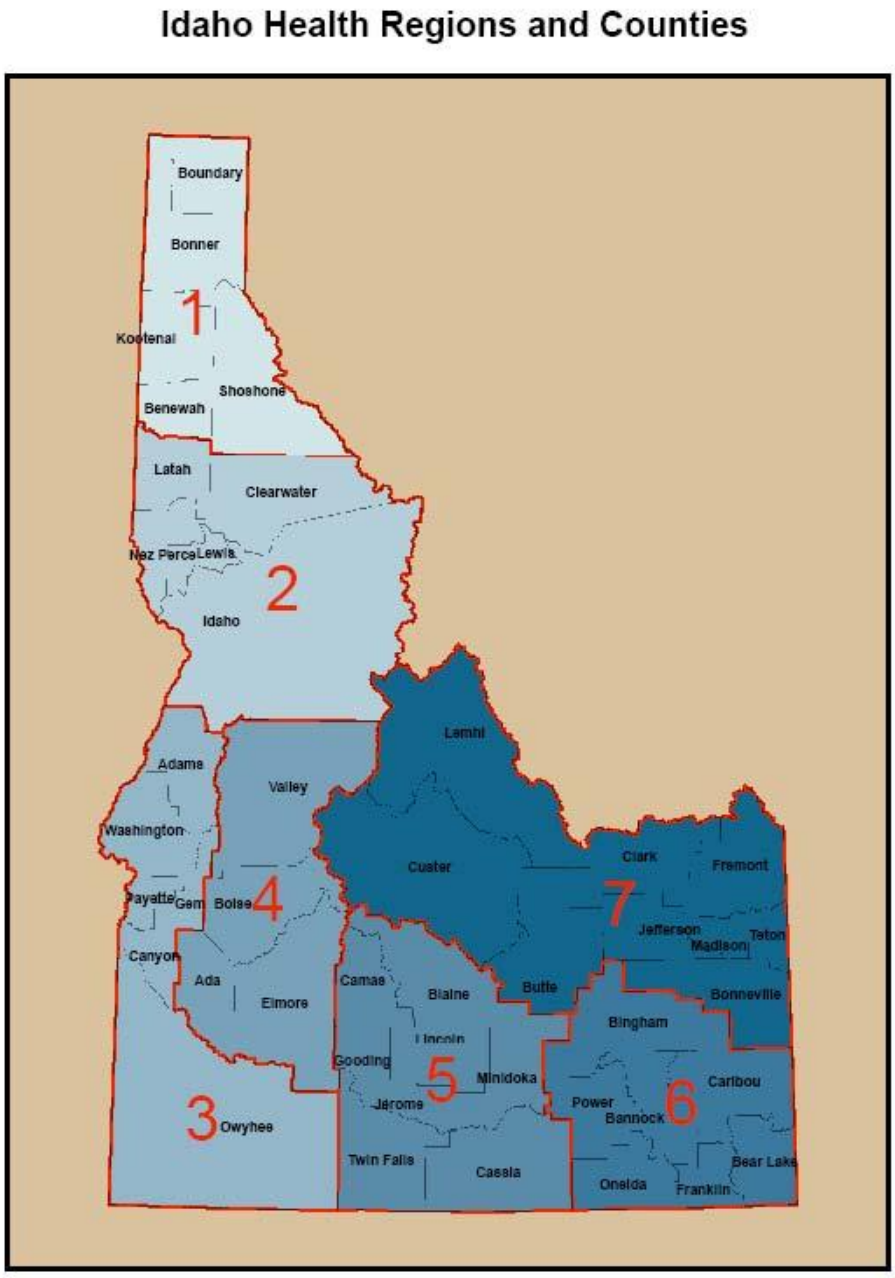
Figure 31


Percentage of Persons Using Methamphetamine in the Past Year 2002-2005
(Issue 37, 2006 NSDUH Report)
1.03
1.47
1.24
1.24
1.47
2.02
0.94
Methamphetamine Use
Age 12 or Older
0.94 - 1.2
1.3 - 1.4
1.5 - 1.6
1.7 - 1.8
1.9 - 2.0

Regional Information

The remainder of this profile examines the various parts of the state by health region. The seven health regions contain multi-county areas. Small county populations contribute to low occurrences of substance abuse. These larger areas can assist in identifying broader substance abuse patterns and trends. The following eight maps highlight demographic characteristics of Idaho. Regional boundaries have been overlaid in red for clarification.

Figure 32



Idaho Demographics

Idaho Population, 2008

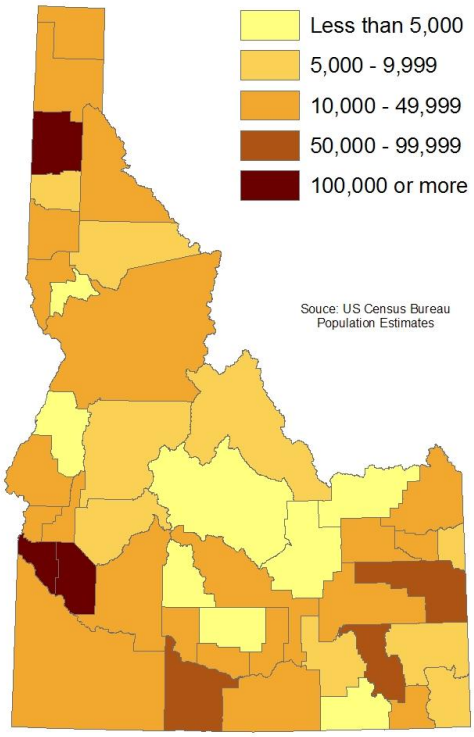


Figure 33

Idaho's most populated counties are Ada, Canyon, and Kootenai counties. Idaho's population in 2006 was 1,499,402, up 15.9% from the 2000 Census. During the 1990's the population in Idaho increased by 28.5 percent and this rate of growth still occurs in some areas. The population growth in metropolitan areas has continuously outpaced growth in nonmetropolitan areas.

Idaho Population Change, 2000-2008

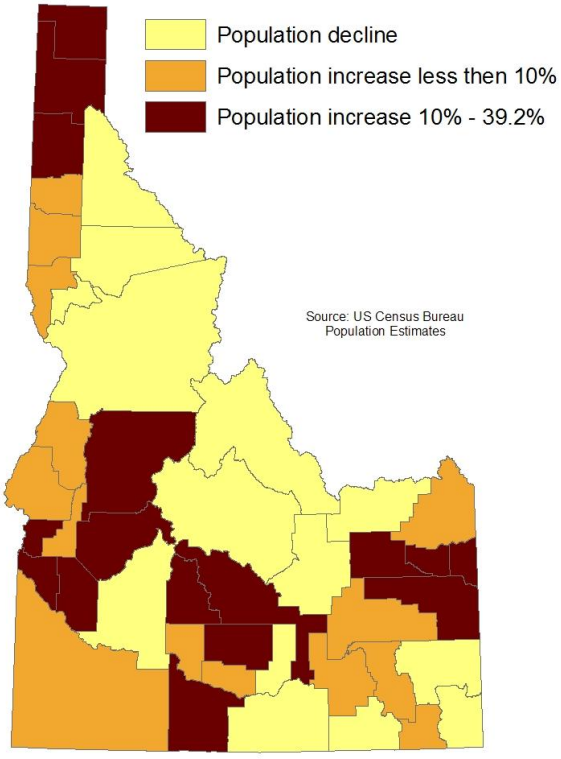


Figure 34

Those counties with the greatest loss of population include Clark (-11.4%), and Clearwater (-7.8%). Counties with greatest population increases include Canyon (36.5%), Teton (39.2%), and Ada (24.1%).

Percent of Population 25 Years and Over with Bachelor's Degree or Higher, 2000

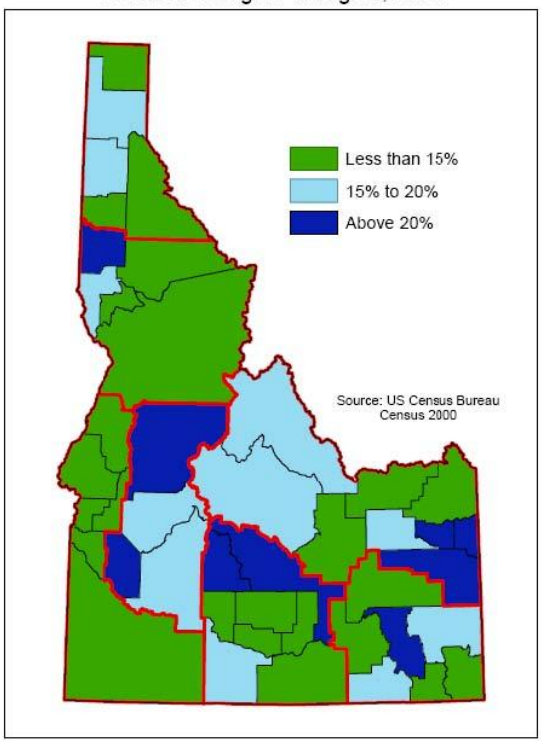


Figure 35

The percent of the population age 25 and over that has earned either a Bachelor's Degree or higher is 24.4% nationally. In Idaho that rate is 21.7%.

Percent of Population in Poverty, 2004

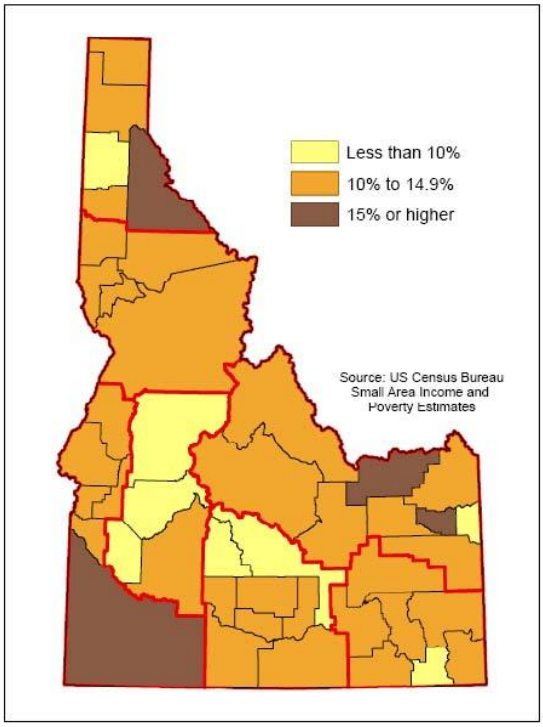


Figure 36

In 2004, nationally, the percent of the population in poverty was 12.7%, and in Idaho the rate was 11.5%. The counties with the lowest percent of the population in poverty were Blaine (5.9%) and Camas (7.3%). Counties with the highest percent of the population in poverty included Shoshone (16.3%), Madison (15.6%), and Owyhee (15.4%).

Per Capita Income, 2005

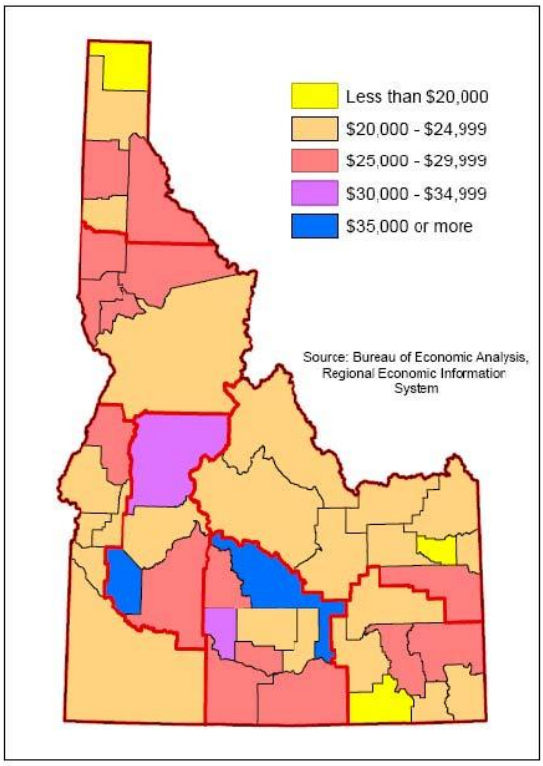


Figure 37

In 2005, the national rate of per capita income was $34,471. Within Idaho the average per capita income was $28,478. Per capita income in the counties ranged from $16,489 in Madison County to $52,245 in Blaine County. Figure 30.

Idaho Counties by Type of Economy, 2004

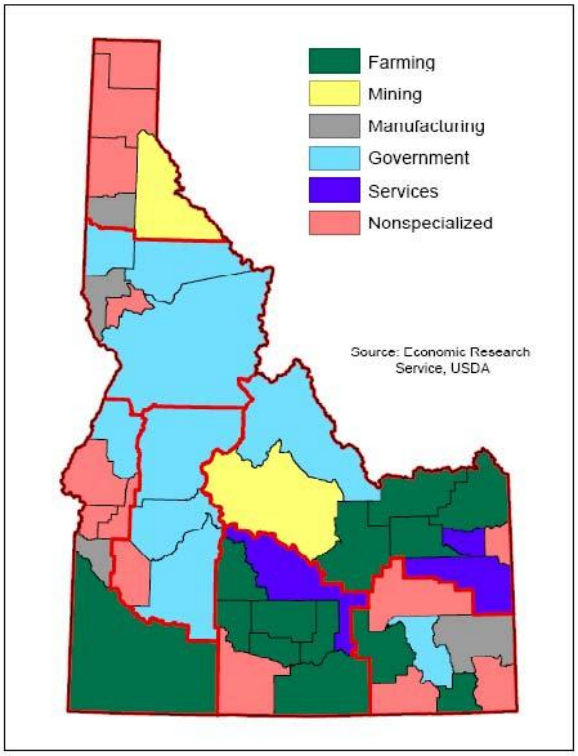
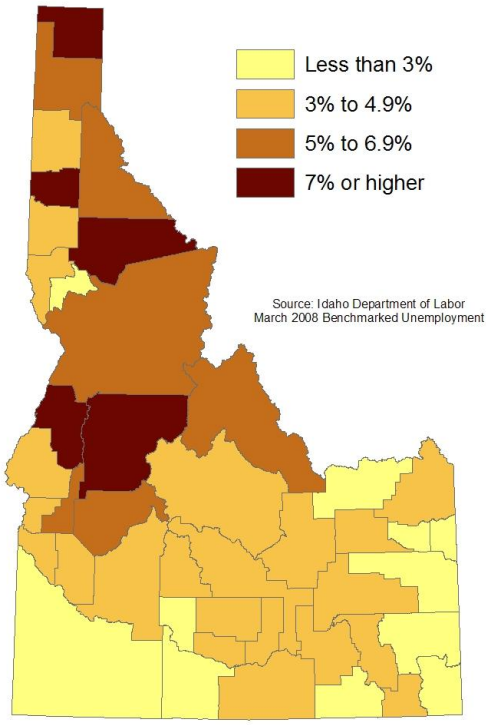


Figure 38

Idaho retains its agricultural and rural roots. The majority of Idaho's counties are specialized in farming, mining, manufacturing, government, or services. When compared by shear area, 28% of Idaho (23,736 Sq miles) is dedicated to farming and 33% (27,901 Sq miles) is dedicated to government use such as BLM, US Forest Service, and US Air Force. Only 13 of the counties in Idaho have a broad enough economic base to be considered non-specialized.

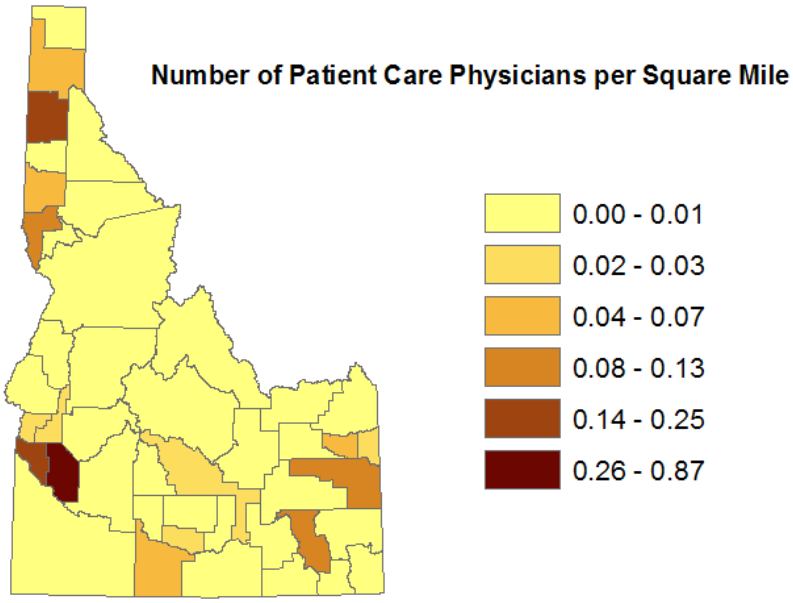
Figure 39
Unemployment Rate, March 2008



The 2008 unemployment rate in Idaho was 4.1%, compared to 5.1% for the nation. In the counties, the unemployment rate ranged from 2.3% in Owyhee and Teton Counties, to 12.9% in Clearwater County.

As you can see from Figure 40, Idaho is greatly underserved medically in its rural areas. A vast majority of the primary care physicians in the state are located in one of the states metropolitan areas.

Figure 40

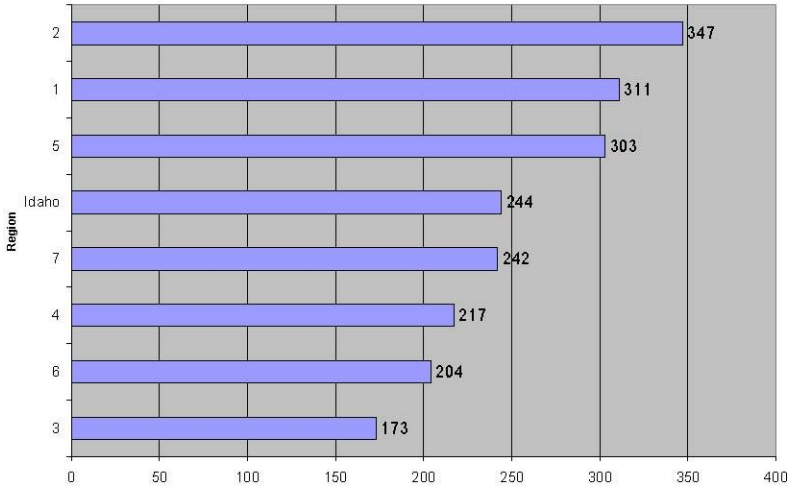


Alcohol and Other Drug Use

Alcohol Use

The number of retail alcohol licenses is a valuable measure of the availability of the alcohol in a region. Prior research has identified an association between the density of alcohol licenses and alcohol related crime and injuries[7, 8]. However, this process is a fairly complex one that involves additional factors such as social acceptance of drinking. In the paragraph below, the density of alcohol licenses is measured by the number of retail alcohol licenses held by retail outlets such as grocery stores, restaurants, and wine shops (*State liquor outlet stores are not included*).

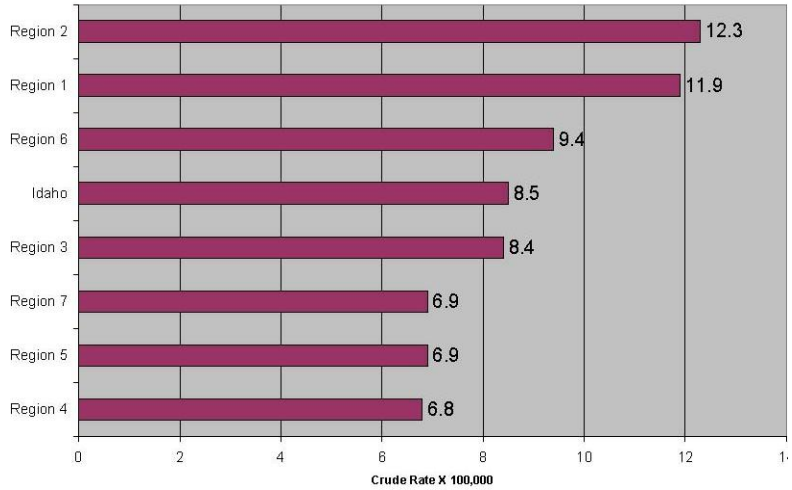
Figure 41: Rate of Alcohol Licenses per 100,000 Population (2005)



Source: Idaho State Police Alcohol Beverage Control Bureau (2005-2006)

The two most northern regions in the state (Regions 1 and 2) rank the highest for alcohol induced deaths. Recall that these two regions also have the highest density of alcohol licenses. The alcohol induced death rates in Regions 1 and 2 are approximately 42% greater than the state rate.

Figure 42: Idaho Alcohol Induced Deaths by Region (1999 – 2004)

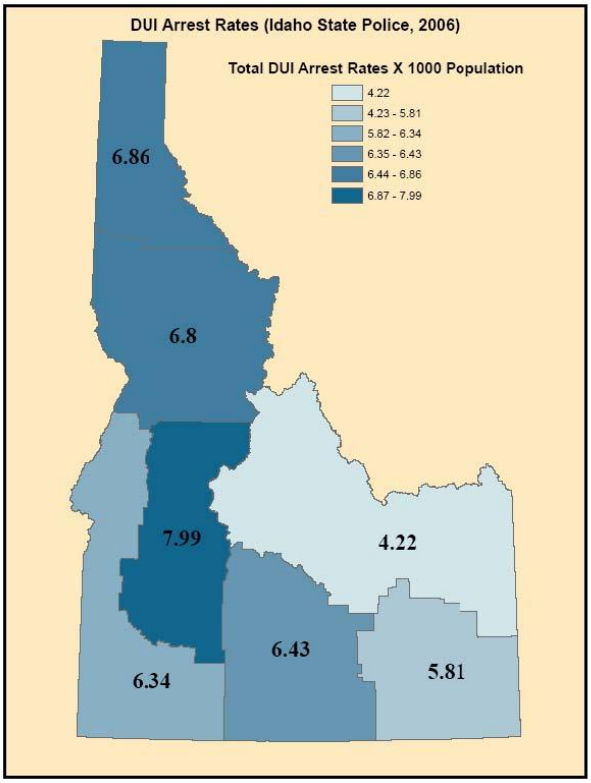


Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2004, CDC WONDER on-line Database, Compiled from Compressed Mortality File 1999-2004 Series 20 No. 2J, 2007[1].

DUI Arrests

Total DUI arrest rates were highest in region 3 (7.99 per 1000), followed by Region 1 (6.86 per 1000) and Region 2 (6.80 per 1000).

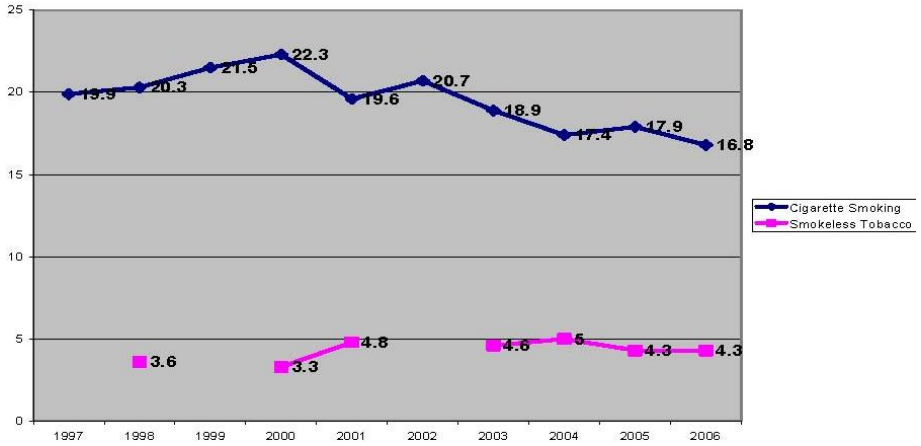
Figure 43



Tobacco Use

The prevalence of cigarette smoking has been dropping in Idaho since 2000. The prevalence of cigarette smoking among Idaho adults dropped to a ten year low of 16.8 percent in 2006. There has been no significant change in the use of smokeless tobacco among adults since 1998.

Figure 44: Percent of Adult Cigarette Smoking and Smokeless Tobacco Use in Idaho

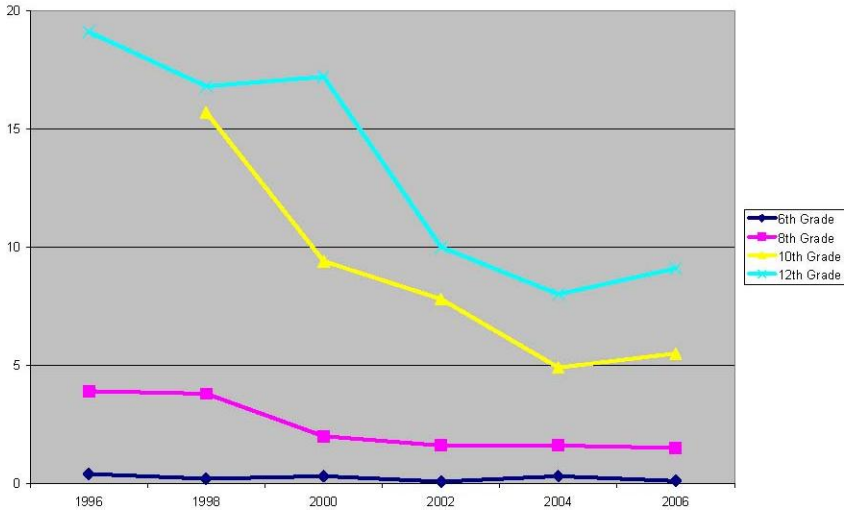


(Breaks in trendline indicate data are not available for those years)

Source: Idaho Behavioral Risk Factor Surveillance System, 1997-2006. Idaho Department of Health and Welfare, Bureau of Vital Records and Health Statistics, October 2007.

After 8 years of declines in smoking among 10th and 12th graders, smoking increased among these groups 12% from 2004 to 2006.

Figure 45: Percent of Idaho Youth Smoking Tobacco Daily (1996 – 2006)

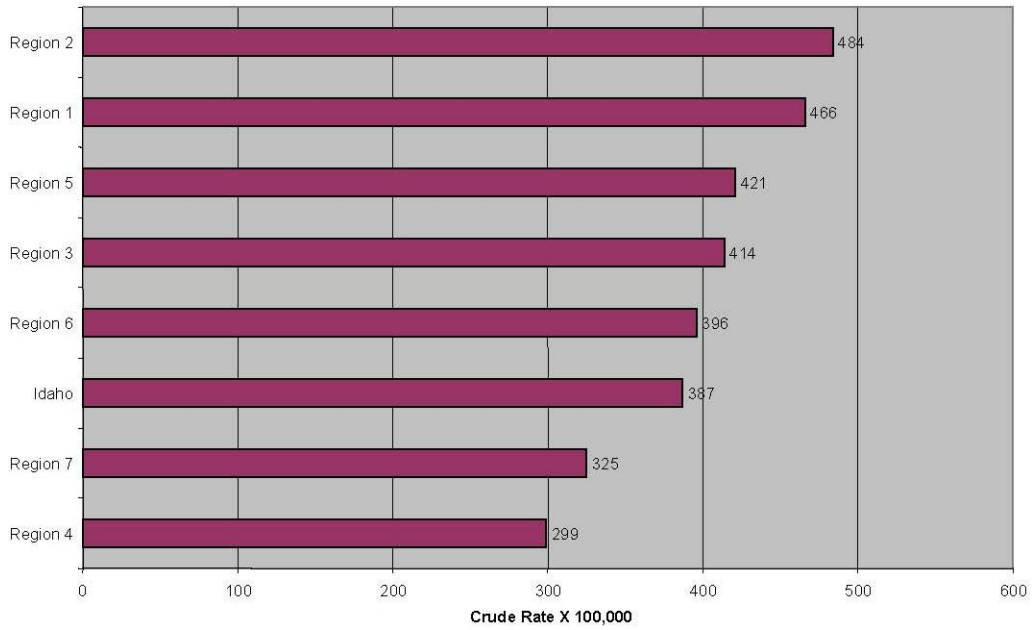


(Breaks in trendline indicate data are not available for those years)

Source: 2006 Idaho Substance Use, Safety, and School Climate Survey. Idaho Department of Education. http://www.sde.idaho.gov/sdfs/freelibrary.asp

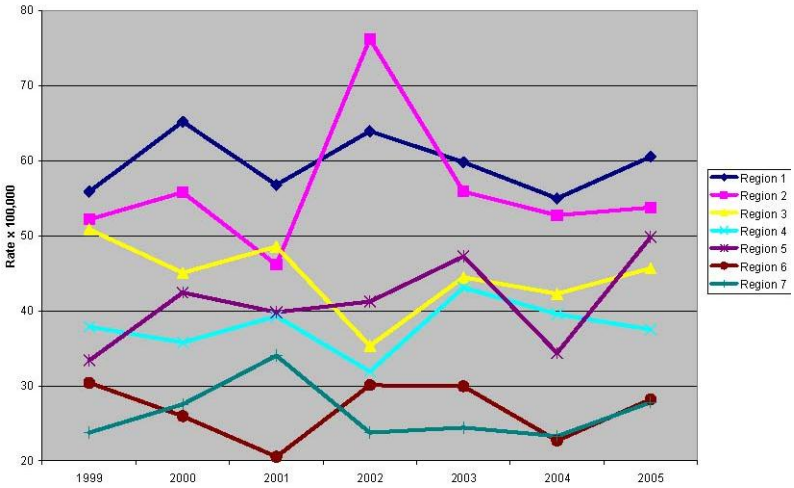
Number of Deaths by Smoking related ICD-10 code[9] (malignant neoplasms, cardiovascular diseases, and respiratory diseases) / population.

Figure 46: Deaths Associated with Smoking Related Diseases by Region (1999 – 2004)



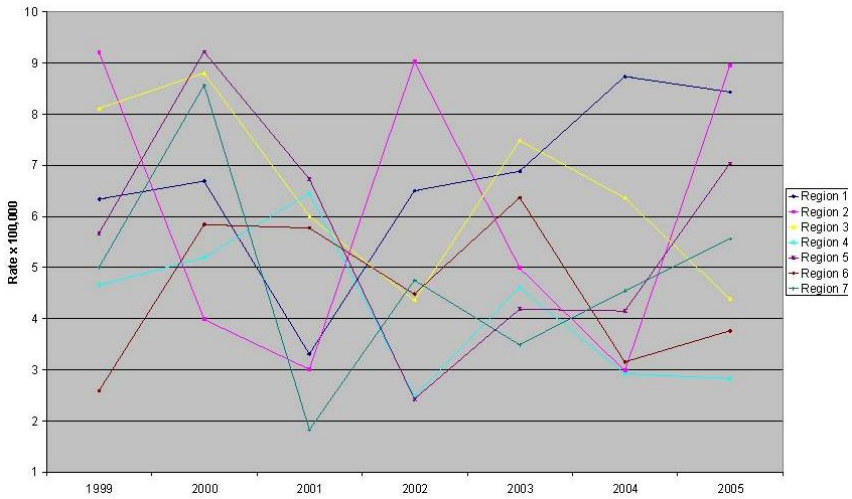
Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2004, CDC WONDER on-line Database, Compiled from Compressed Mortality File 1999-2004 Series 20 No. 2J, 2007.

Figure 47: Trachea, Lung, and Bronchius Malignant Neoplasms, Rates by Region (1999 – 2006)



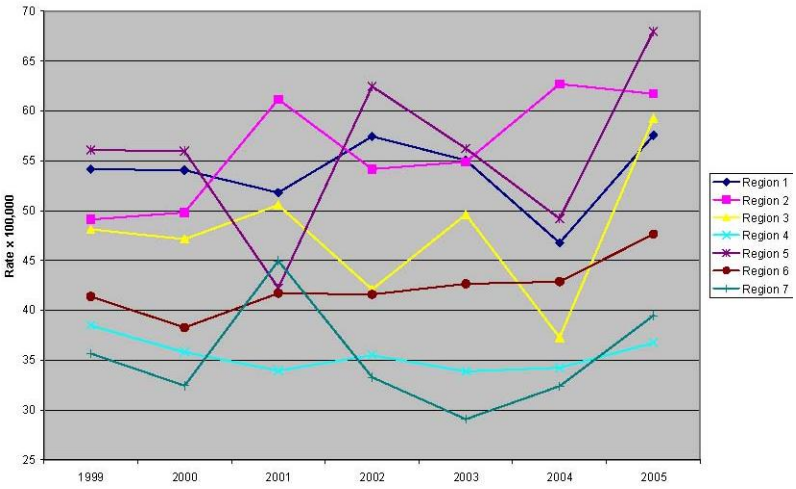
Source: Idaho Department of Health and Welfare, Bureau of Health Policy and Vital Statistics (July 2007).

Figure 48: Aortic Aneurysm, Rates by Region (1000 – 2005)



Source: Idaho Department of Health and Welfare, Bureau of Health Policy and Vital Statistics (July 2007).

Figure 49: Chronic Lower Respiratory Diseases, Rates by Region (1999 – 2005)



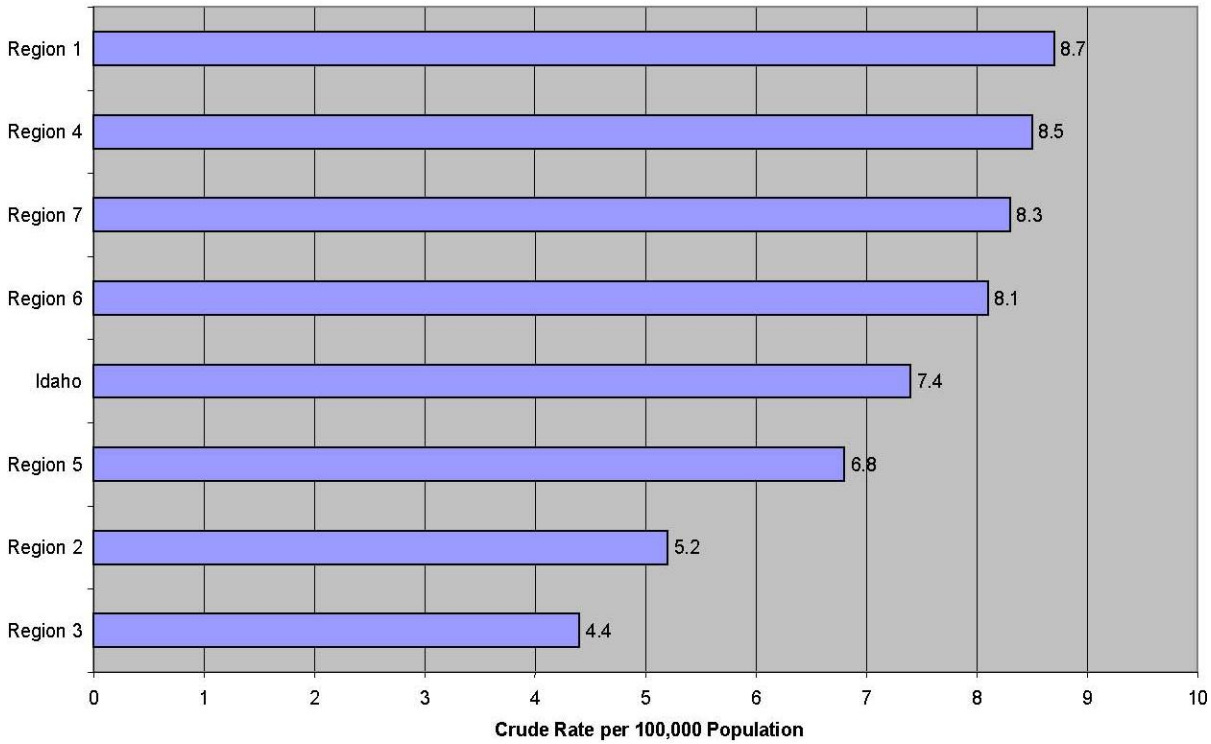
Source: Idaho Department of Health and Welfare, Bureau of Health Policy and Vital Statistics (July 2007).

Drug Use

The stigmatized nature of illicit drug use makes data on drug users difficult to obtain. Because of these difficulties it is recommended that multiple sources of data be used to determine the extent and nature of drug-using behaviors in an area. The most widely used approach is to combine both existing data (often administrative data) with surveys. Surveillance of existing data reflect consequences of use (e.g., substance abuse treatment, arrest reports, mortality, and infectious disease information) and can provide information on general drug-use patterns within a population. Since these data are not population based, it is difficult to accurately develop prevalence rates from them. However, looking at these data over time can highlight where drug abuse patterns exist, and how they spread within and across geographic areas. Survey data is usually population based and can provide information on the prevalence of drug use in the population.

Rates of drug induced deaths are higher in Regions 1 and 4. The rate of drug induced deaths in region 1 was 17% higher than the state's overall rate. Recall that Region 1 also ranked high in alcohol and smoking related deaths.

Figure 50: Regional Drug Induced Death Rates (1999 – 2004)

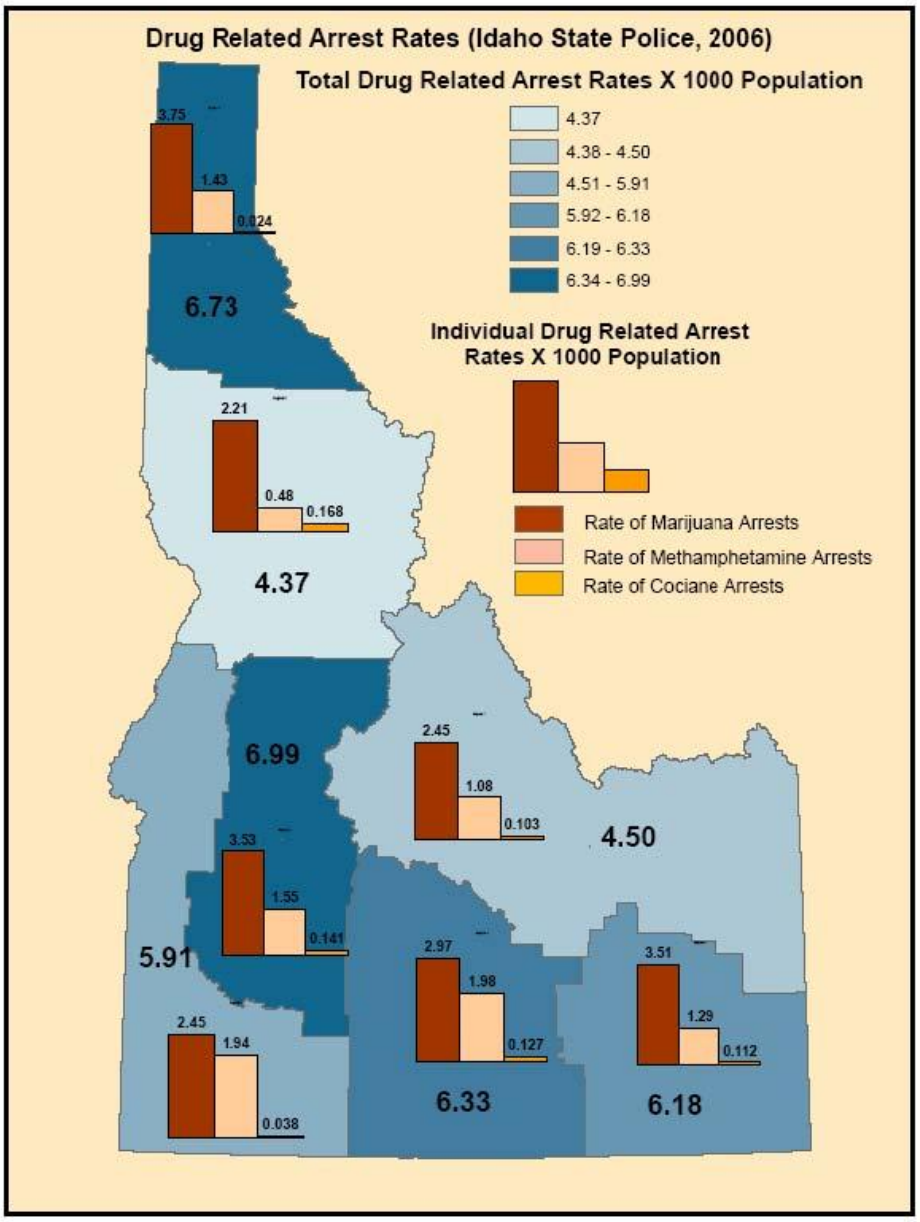


Source: Centers for Disease Control and Prevention, National Center for Health Statistics, Compressed Mortality File 1999-2004, CDC WONDER on-line Database, Compiled from Compressed Mortality File 1999-2004 Series 20 No. 2J, 2007[2].

Drug Arrests

Total drug related arrest rates were highest in region 4 (6.99 per 1000) and in Region 1 (6.73 per 1000). Statewide, the rate of marijuana arrests are most prevalent, followed by methamphetamine arrests, and next by cocaine arrests. The rate of marijuana related arrests were highest in Regions 1, 4, and 6. The rate of methamphetamine related arrests were highest in Regions 5 and 3. Although Region 2 recorded the state's lowest rates for marijuana and methamphetamine related arrests, this region had the highest cocaine related arrest rate (0.168 per 1000 population) across the state[10].

Figure 51

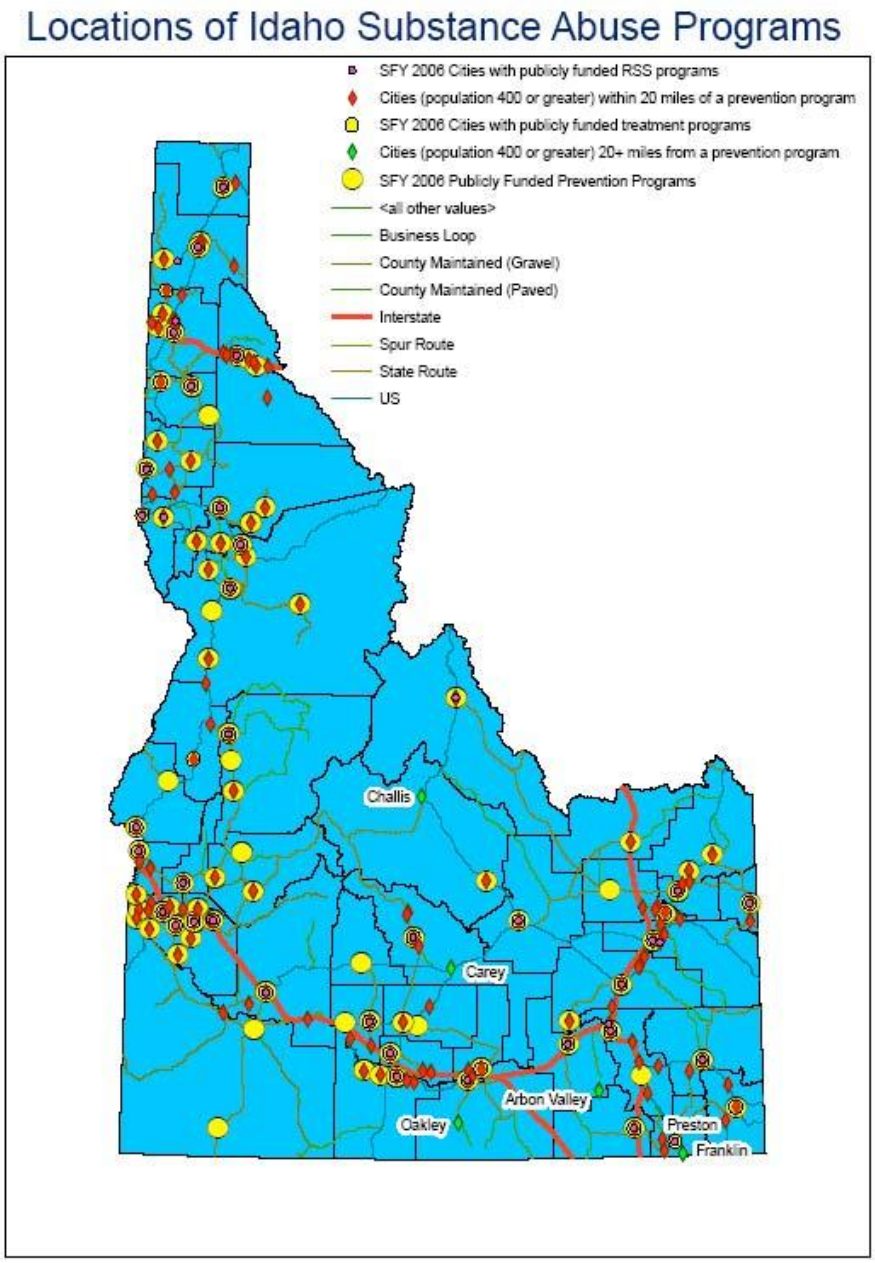


Prevention and Treatment Services

Program Locations

In 2007, forty-six substance abuse programs in Idaho were offered at 146 sites. Types of treatment include: adult outpatient, adult residential, adult halfway house, adult detox, pregnant women with children transitional housing, adolescent outpatient, and adolescent residential. Services are most limited in central Idaho, which is also classified as a medically underserved population (See figure 32).

Figure 52



Treatment Admissions

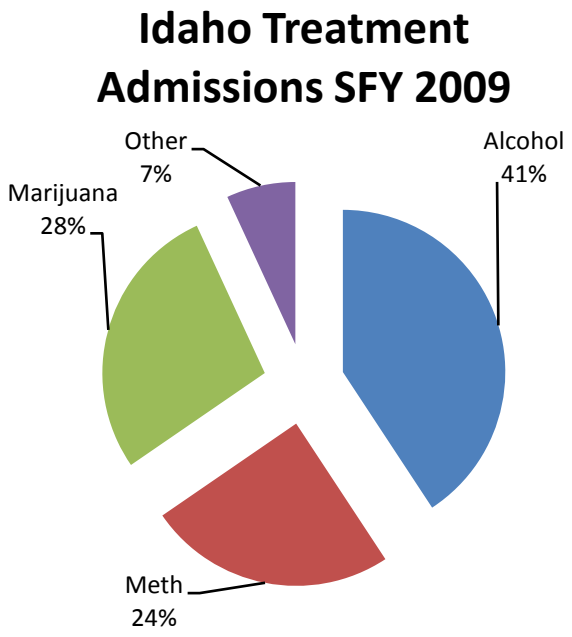
Admission data can be influenced by many factors including; treatment availability, treatment demand (self-referral and court referrals), changes in administrative policies (locally and statewide), funding, and availability of outreach or intervention programs.

Although the above factors limit its use, an advantage of treatment data is that it is a generally good indicator of the types of drugs being used in an area and can show changes in patterns over time. One disadvantage is that treatment data cannot readily be used to make prevalence estimates for a geographic area because most users do not seek or are unable to obtain treatment.

Treatment data can be compared with data from other areas. However, again, one cannot for instance assume from treatment data that one Region A has a greater alcohol problem than Region B because of a higher treatment admissions rate. Region A may simply have outreach programs targeted specifically to bring alcohol users into treatment. Important programmatic differences such as this however stand to go unnoticed if comparisons of treatment data are never made.

In 2008, twenty-seven percent of treatment admissions in Idaho were for amphetamines, 21% for marijuana, and 45% for alcohol. Seven percent of treatment admissions were due to other substances.

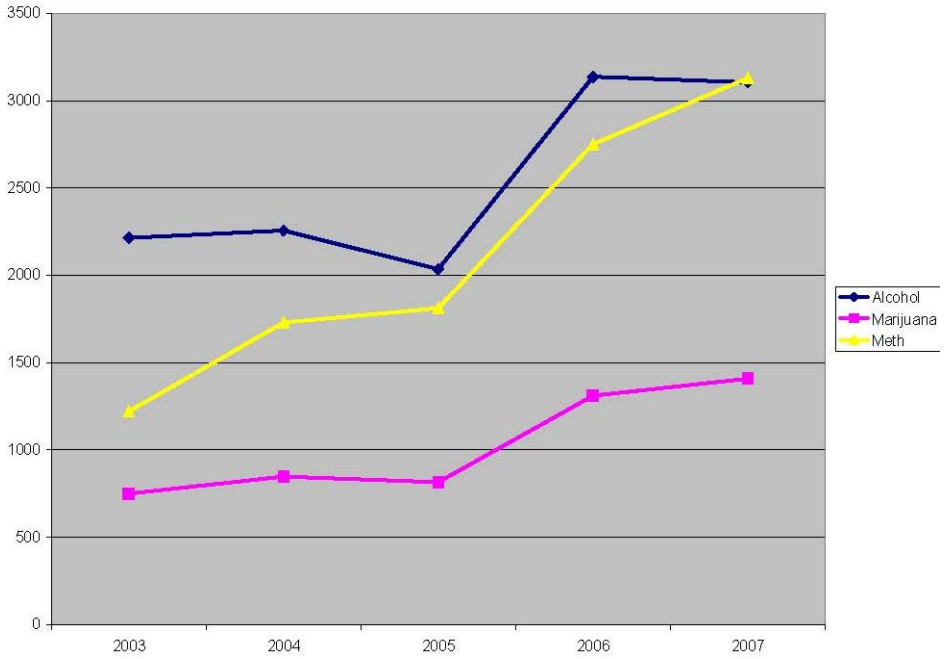
Figure 53



Compared with 2003 treatment data, the increases in meth treatment have far outpaced (256%) the increases for alcohol and marijuana treatment. Since 2005, adult treatment

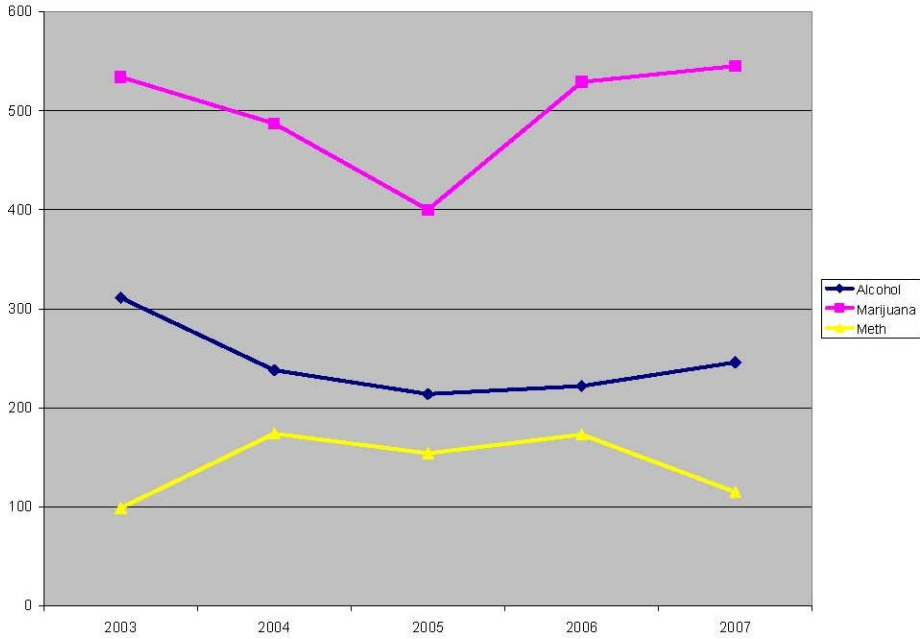
admissions have increased 52% for alcohol, 73% for marijuana, and 73% for methamphetamine.

Figure 54: Adult Treatment Admissions, IDHW



Looking back to 2003, youth treatment trends have been relatively more stable than adult trends. Since 2005 youth treatment admissions for alcohol have increased 15% and 36% for Marijuana. However, since 2005, youth admissions for methamphetamine have decreased 25%. Recent increases in youth marijuana treatment trends are similar to adult marijuana trends.

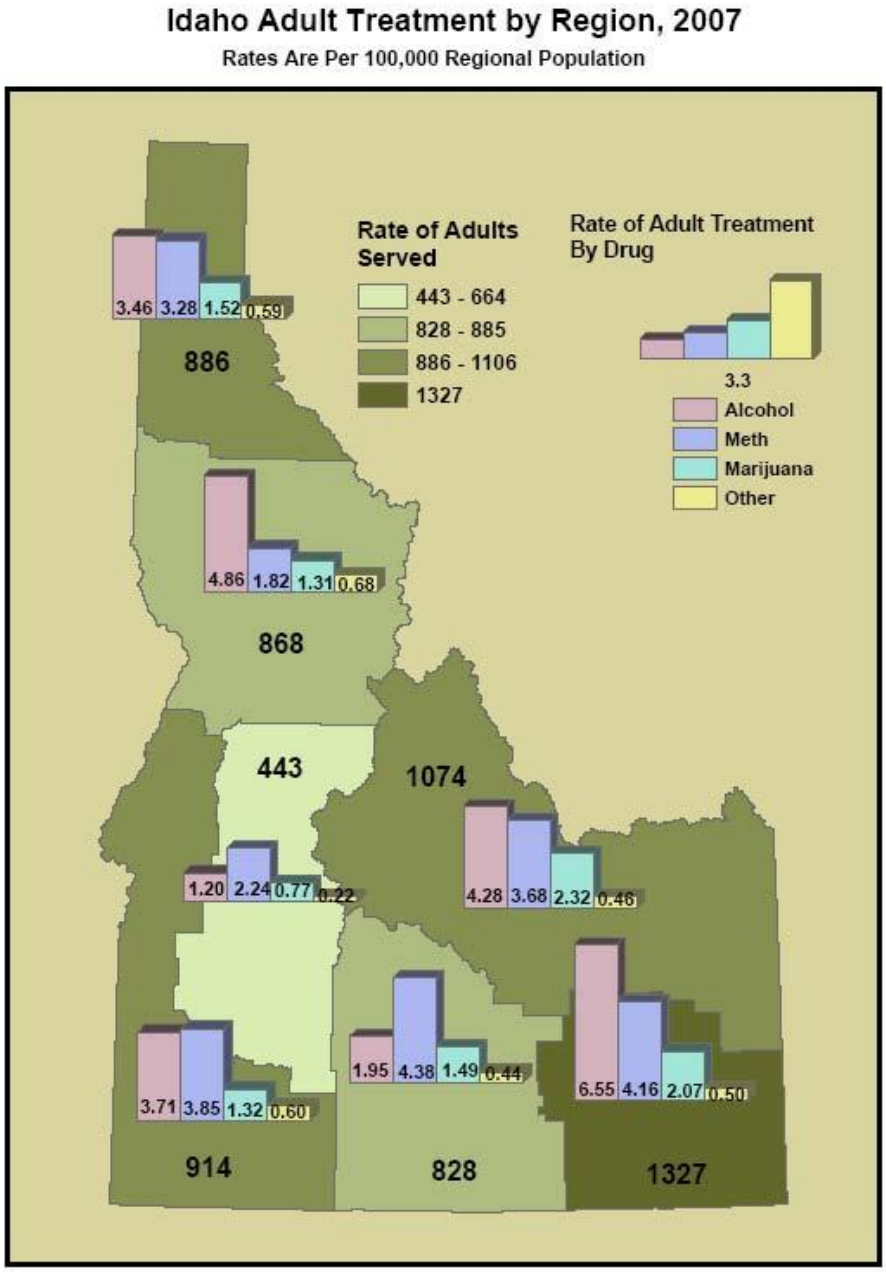
Figure 55: Youth Treatment Admissions, IDHW



Adult Treatment

2007 Health and Welfare data indicates that Region 3 treated more adults (1583[11]) than any other region and Region 6 serves more adults per capita (1327 per 100,000) than any other region. By regional population, Region 6 treats relatively more adults for alcohol use (6.55 per 100,000), Region 5 treats more adults for methamphetamine use (4.38 per 100,000), Region 7 treats more adults for marijuana use (2.32 per 100,000), and Region 2 treats more adults for other drugs such as heroin and cocaine (0.68 per 100,000).

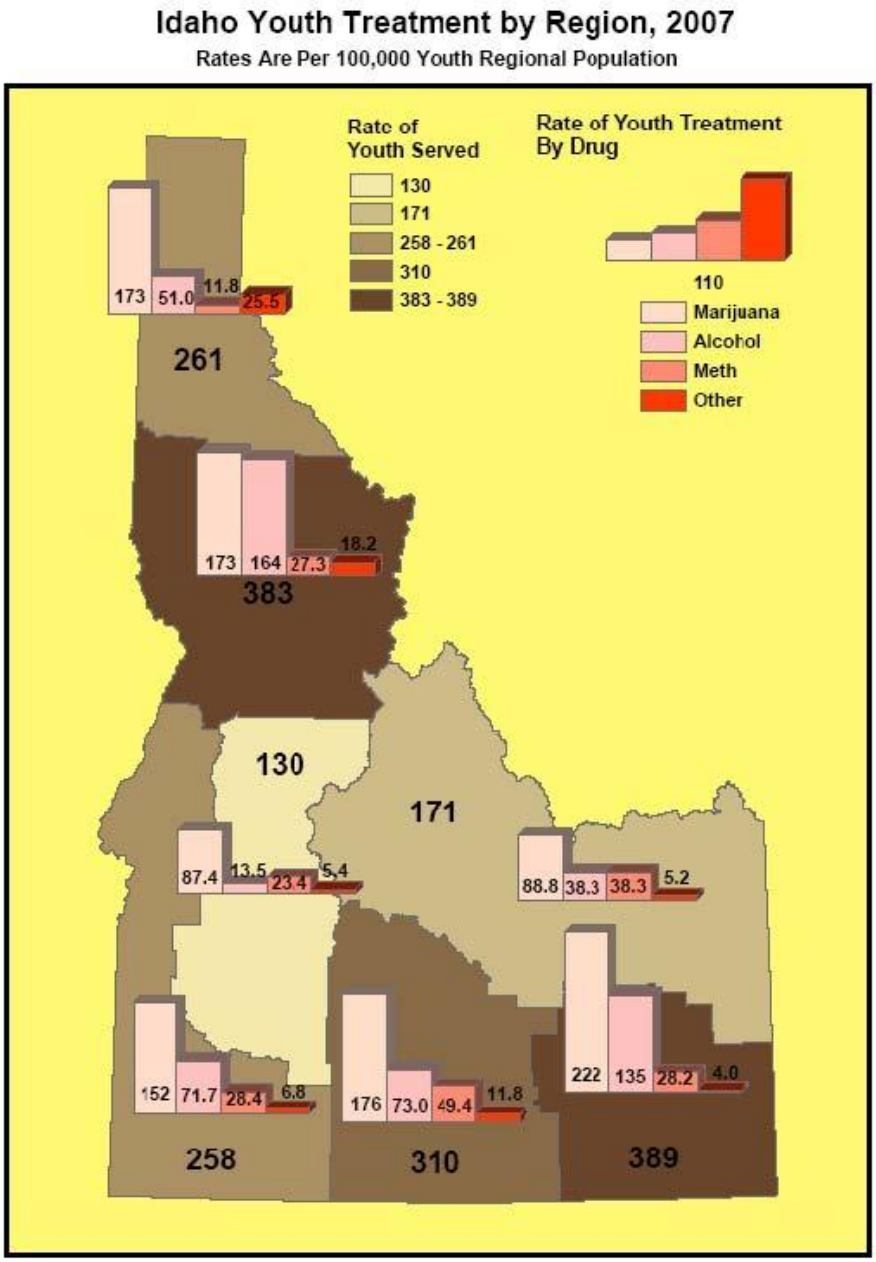
Figure 56



Youth Treatment

In 2007, Regions 6 and 3 treated more youths than other regions (193 and 191[11] respectively). Regions 6 and 2 treated more youths per capita than other regions (389 and 383 per 100,000 respectively). By regional youth population, Region 6 treated relatively more youth for marijuana (222 per 100,000 youths), Region 2 treated more youth for alcohol (164 per 100,000 youths), Region 5 treated more youth for methamphetamine (49.4 per 100,000 youths), and Region 1 treated more youth for other drugs (25.5 per 100,000 youths).

Figure 57



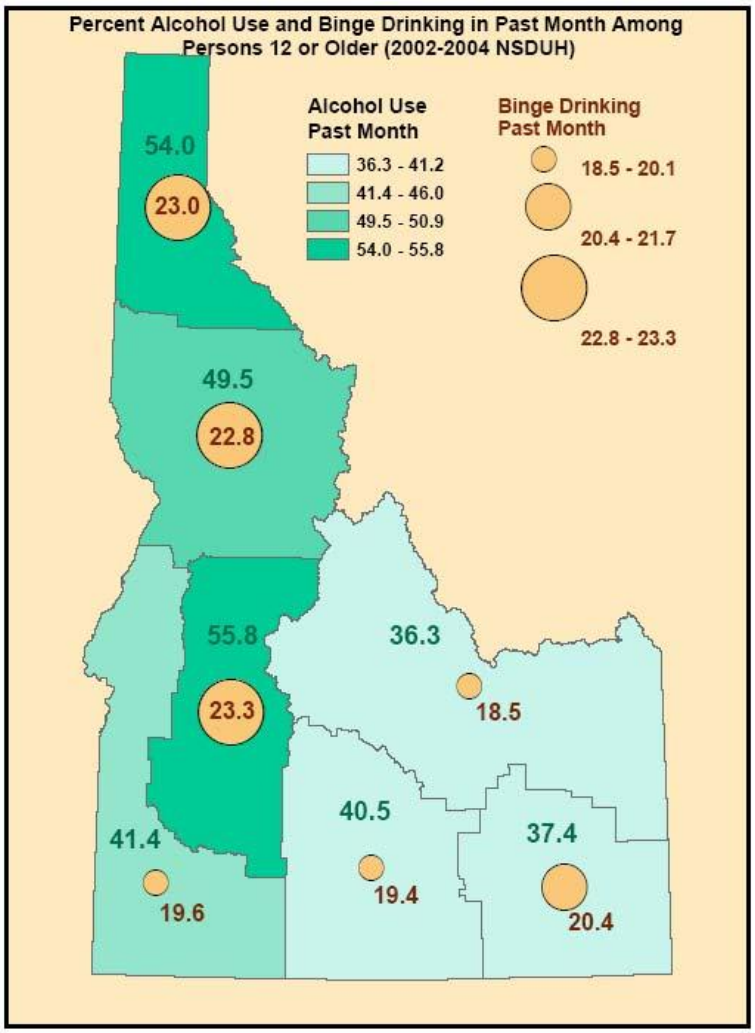
Consumption

Alcohol/Binge Drinking

The National Survey on Drug Use and Health (NSDUH) is a nationwide survey involving in-person interviews with approximately 70,000 randomly selected individuals aged 12 and older. It should be noted that due to the obscure nature of substance abuse, in particular illicit drug use, these behaviors are often under-reported in surveys.

Regional binge drinking (5 or more drinks on an occasion) establishes a similar pattern to that of past month alcohol use across Idaho's regions. Regions 3, 1, and 2 rank the highest for percent of alcohol use and binge drinking in the state.

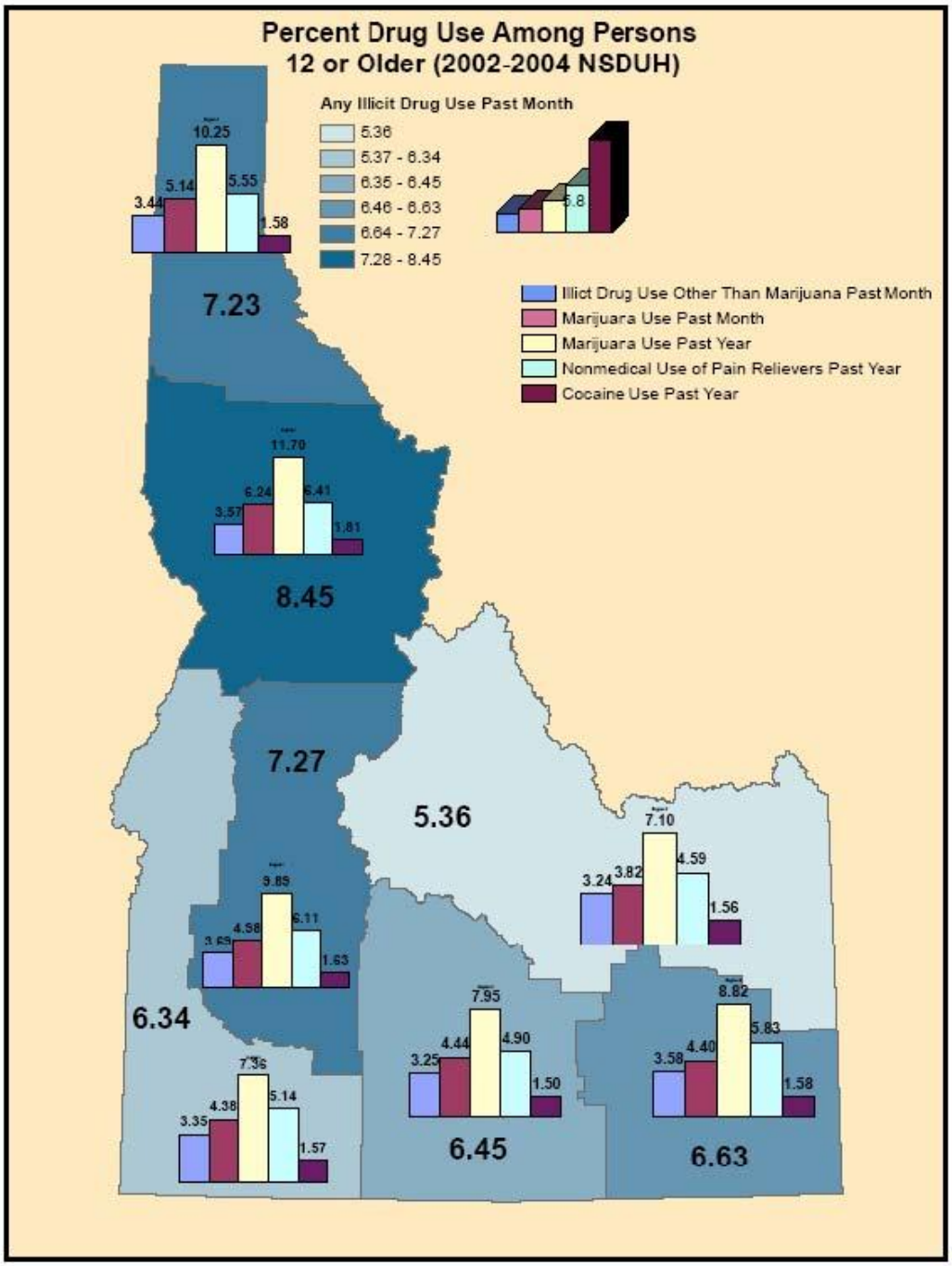
Figure 58



Drug Use

Percent of drug use among persons 12 or older was highest in Region 2 (8.45%). Percent of illicit drug use other than marijuana in the past month was highest in Region 3 (3.69%), while percent of marijuana use past month (6.24%), percent of marijuana use past year (11.7%), percent non-medical use of pain relievers (6.41%), and percent cocaine use past year (1.81%) were highest in Region 2.

Figure 59



Notes

[1] *Alcohol induced deaths*- The following ICD-10 codes are used to capture alcohol induced deaths: E24.4, F10, G31.2, G62.1, G72.1, I42.6, K29.2, K70, K86.0, R78.0, X45, X65, and Y15. Alcohol-induced deaths include mental and behavioral disorders due to alcohol use, degeneration of the nervous system due to alcohol, alcohol polyneuropathy, alcoholic cardiomyopathy, alcoholic gastritis, alcoholic liver disease, findings of alcohol in blood, accidental poisoning by and exposure to alcohol, intentional self-poisoning (suicide) by and exposure to alcohol, and poisoning by and exposure to alcohol undetermined intent. Alcohol-induced deaths do not include accidents such as falls and motor vehicle crashes, homicides, and other causes indirectly related to alcohol use. This category also excludes newborn deaths associated with maternal alcohol use.

Source: Estimates for 1999 are based on the 1990 Census, Internet release date August 30, 2000. 2000 Census: U.S. Bureau of the Census, Internet release date August 1, 2001. Estimates for 2001-2006 are based on the 2000 Census, U.S. Census in collaboration with the National Center for Health Statistics, Internet release dates August 8, 2003, August 18, 2004, September 9, 2005, August 16, 2006 and August 16, 2007.

[2] *Drug induced deaths*- The following ICD-10 codes are used to capture drug induced deaths: D52.1, D59.0, D59.2, D61.1, D61.1, D64.2, E06.4, E16.0, E23.1, E24.2, E27.3, E66.1, F11.0-F11.5, F11.7-F11.9, F12.0-F12.5, F12.7-F12.9, F13.0-F13.5, F13.7-F13.9, F14.0-F14.5, F14.7-F14.9, F15.0-F15.5, F15.7-F15.9, F16.0- F16.5, F16.7-F16.9, F17.0, F17.3-F17.5, F17.7-F17.9, F18.0-F18.5, F18.7-F18.9, F19.0-F19.5, F19.7-F19.9, G21.1, G24.0, G25.1, G25.4, G25.6, G44.4, G62.0, G72.0, I95.2, J70.2-J70.4, L10.5, L27.0, L27.1, M10.2, M32.0, M80.4, M81.4, M83.5, M87.1, R78.1- R78.5, X40-X44, X60-X64, X85, and Y10-Y14. Drug-induced deaths include deaths due to drug psychosis; drug dependence; nondependent use of drugs not including alcohol and tobacco; accidental poisoning by drugs, medicaments, and biologicals; intentional self-poisoning (suicide) by drugs, medicaments, and biologicals; assault (homicide) by poisoning by drugs and medicaments; and poisoning by drugs, medicaments, and biologicals, undetermined whether accidental or purposely inflicted. Drug-induced deaths do not include accidents such as falls and motor vehicle crashes, homicides, and other causes indirectly related to drug use. Also excluded are newborn deaths associated with mother's drug use.

Source: Estimates for 1999 are based on the 1990 Census, Internet release date August 30, 2000. 2000 Census: U.S. Bureau of the Census, Internet release date August 1, 2001. Estimates for 2001-2006 are based on the 2000 Census, U.S. Census in collaboration with the National Center for Health Statistics, Internet release dates August 8, 2003, August 18, 2004, September 9, 2005, August 16, 2006 and August 16, 2007.

[3] The categories of Homicide and Drug Induced Deaths are not mutually exclusive. Both Homicide and Drug Induced Deaths share the common ICD-10 code X85 which identifies Assault by drugs, medicaments and biological substances. A CDC Wonder search indicates that during the period shown (2003), Idaho counted 1 occasion (0.1 per 100,000), Montana counted 1 occasion (0.1 per 100,000), Nevada counted 2 occasions (0.1 per 100,000), and Utah counted 1

occasion (0.0 per 100,000). Wyoming, Oregon, and Washington did not record any X85 related deaths in 2003.

[4] The SAF is developed via a formula that includes percent of never smokers, percent of current smokers, percent of former smokers, relative risk of death for current smokers to never smokers, and relative risk of death for former smokers to never smokers.

Variables used to calculate Smoking Attributable Fraction (SAF)
P0 = % of adult never smokers
P1 = % of adult current smokers
P2 = % of adult former smokers
RR1 = relative risk of death for adult current smokers relative to never smokers
RR2 = relative risk of death for adult former smokers relative to never smokers

[5] ICD-10 Codes for the 4 major causes of drug-induced deaths:
Mental and behavioral disorders due to psychoactive substance use: F11-F19
Accidental Poisoning: X40-X44
Intentional Self-harm: X60-X84
Poisoning by and exposure to drugs (undetermined intent): Y10-Y34

[6] Complications might include “bad trips,” trauma, inhalation of vomit, delirium, coma, convulsions, physical damage due to hepatitis at an injection site, or episodes of depression. Other complications can include cognitive and physiological events due to persistent use including withdrawal, or psychotic episodes such as hallucinations or paranoia. Further complications might include residual or late onset disorders that persist after the period that psychoactive substance was chemically active such as dementia, cognitive performance, flashbacks, and personality, behavioral, or affective disorders.

Included in the Mental and Behavioral Disorders Due to Psychoactive Substance Use chart above are unspecified mental and behavioral disorders due to use of tobacco (F17). These rates per 100,000 population are: UT - 0.4, MT - 0.7, WY - 0.7, ID - 0.4, OR - 0.6, WA - 0.3, NV - 0.1. In the area comprised of these states, mental and behavioral disorders due to harmful tobacco use (F17.1), dependence on tobacco (F17.2), residual and late onset psychotic disorder due to tobacco (F17.7), and unspecified mental and behavioral disorder due to tobacco (F17.9) accounted for 36% of those deaths in the mental and behavioral disorders due to psychoactive substance use (F11-F19). In Idaho, from 1999-2004, F17 accounted for 67% of the F11-F19 deaths.

[7]Gorman, Dennis M., Paul W. Speer, Paul J. Gruenewald, and Erich W. Labouvie. "Spatial dynamics of alcohol availability, neighborhood structure and violent crime." Journal of Studies on Alcohol 62.5 (Sept 2001): 628(9). Health Reference Center Academic. Gale. Idaho Commission for Libraries. 15 Jan. 2008.

[8]Scribner, Richard A., David P. MacKinnon, and James H. Dwyer. "Alcohol outlet density and motor vehicle crashes in Los Angeles County cities." Journal of Studies on Alcohol 55.n4 (July

1994): 447(7). Academic OneFile. Gale. Idaho Commission for Libraries. 15 Jan. 2008

[9] *Deaths associated with smoking related disease*- ICD-10 codes included are:
Neoplasms: C00-D48
Diseases of the circulatory system: I00-I99
Diseases of the respiratory system: J00-J98

[10] Drug Related Arrests are arrests in which a drug or drug equipment was seized. Note, there are multiple arrest counts per incident. Thus, there may be 5 arrests but only one seizure. However, the seizure is counted 5 times (once for each arrest).

[11] *2007 Regional Treatment Admissions*

2007 Regional Treatment	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7
Number of Adults Treated	1416	694	1583	1363	1044	1478	1414
Number of Youth Treated	133	84	191	144	157	193	98

Appendix 1

Number of Idaho Alcohol and Drug-Induced Deaths By County 1999-2004[1, 2]		
County	**Alcohol-Induced**	**Drug-Induced**
Ada	126	165
Adams	4	1
Bannock	50	48
Bear Lake	2	4
Benewah	11	7
Bingham	23	13
Blaine	13	4
Boise	1	8
Bonner	31	19
Bonneville	41	53
Boundary	5	4
Butte	2	0
Camas	1	0
Canyon	56	34
Caribou	1	1
Cassia	10	7
Clark	0	0
Clearwater	13	4
Custer	1	2
Elmore	10	6
Franklin	5	6
Fremont	4	7
Gem	11	4
Gooding	2	3
Idaho	11	2
Jefferson	10	7
Jerome	11	6
Kootenai	67	49
Latah	13	5
Lemhi	5	6
Lewis	3	2
Lincoln	1	1
Madison	2	5
Minidoka	7	13
Nez Perce	34	18
Oneida	4	2
Owyhee	5	3
Payette	18	9
Power	3	2
Shoshone	17	17
Teton	4	3
Twin Falls	23	33
Valley	8	4
Washington	8	2